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ABSTRACT

"Zero to Three" is a single focus bulletin of the National Center for Infants, Toddlers, and Families providing insight from multiple disciplines on the development of infants, toddlers, and their families. Noting that because the perinatal period-from the later stages of pregnancy through the first 6 months of the infant's life-is a period of transition, preoccupation, major biological upheaval, and one of forging new connections, it is also a highly vulnerable period, this issue focuses on perinatal mental health and theoretical, research, and clinical approaches to the period. The featured articles include the following: (1) "Parental Preoccupation and Perinatal Mental Health" (Linda C. Mayes); (2) "Keeping the Baby in Mind: A Critical Factor in Perinatal Mental Health" (Arietta Slade); (3) "Postpartum Mood Changes: Are Hormones to Blame?" (Neill Epperson); (4) "Harris Programs in Prenatal Mental Health at the Yale Child Study Center" (Linda Mayes); (5) "Early Connections: Mother-Infant Psychotherapy in Support of Perinatal Mental Health" (Eda Spielman); (6) "Treating Maternal and Postpartum Depression: The Missing Link in an Early Childhood Mental Health Program" (Sandra R. Wolkoff); (7) "Maternal Mental Health: Early Identification in a Hospital-Based Multidisciplinary Setting" (Ida Cardone); (8) "The First Year Program: Developing the Earliest Relationship" (Robin McClelland and Kathleen Chapman); (9) "Infant Mental Health in a Healthy Families Home Visiting Program" (Carol Baxter, Leslie S. Rose, and Janice Connelly); and (10) "Perinatal Mental Health in Shasta County, California" (Susan Howland Thompson). Regular departments in the bulletin list Zero to Three publications, videotapes and on-line resources, and Zero to Three staff announcements. (HTH)

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ZERO TO THREE®

June/July 2002
Volume 22 No. 6

Bulletin of ZERO TO THREE: National Center for Infants, Toddlers, and Families

Perinatal Mental Health:

Supporting New Families Through Vulnerability and Change

Understanding how adults transition to parenthood

Biological challenges to new mothers' mood and behavior

Interventions with families during the perinatal period

Community mental health services for new families

PS 031112

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EDITORS' NOTE

The perinatal period — from the later stages of pregnancy through the first 6 months of life — is a developmental epoch that most clinicians recognize as critical to maternal and infant mental health. It is a critical time for parents, who begin the biological, psychological, and cultural transition to parenthood, and for newborns, who are their first sense of people and of the world around them. Because it is a period of transition, of preoccupation, of major biological upheaval, and of forging new connections, it is also a highly vulnerable time, and one that sets the tone for the parent-child relationship in all its joy and vicissitudes.

The perinatal period, per se, has received relatively little direct attention within the field of infant mental health. In this issue, we present a series of papers describing theoretical, research, and clinical approaches to the period. We begin with three papers from the Yale Child Study Center that outline crucial aspects of this transition: the development and modulation of parental preoccupation, the development of reflective awareness, and the regulation and modulation of the biological and hormonal changes intrinsic to pregnancy and parturition. Following these papers is a brief description of some of the programs we are developing at the Child Study Center to study and treat families during the perinatal period. The next three papers – by Eda Spielman, Sandra Wolkoff, and Ida Cardone – use case material from a wide range of families and clinical situations to demonstrate the enormous complexity of intervening at this critical moment in development. Finally, three brief program descriptions by clinicians working in settings across the country illuminate the range of approaches and services employed by community agencies to meet the need for infant mental health services to very new families.

What becomes very clear in reading this collection of papers is that it truly does "take a village" to respond to the complex and diverse problem of new mothers and their families. This is work that requires an array of integrated services working together; working quickly; working flexibly, in the home or office; intermingling group, individual, and family approaches; staffed by people who are willing to try new approaches and expand the parameters of traditional treatment in a variety of ways. "Interdisciplinary" takes on new meaning in reading these papers, which again and again emphasize the critical interface between the domains of social work, psychology, psychiatry, nursing, medicine, and education. This flexibility has always been the hallmark of the infant mental health field, but it is particularly necessary in situations of rapid biological, emotional, and familial change.

We hope that – taken together – these papers will help to further delineate the complex issues of the perinatal period, and will encourage continuing dialogue amongst clinicians, developmentalists, researchers, and community agencies regarding the study and treatment of the youngest members of our society and their vulnerable but ready families.

Arietta Slade, Ph.D., Linda C. Mayes, M.D., C., and Neill Epperson, M.D.

CORRECTION

Author attribution of the article, "Intervening With Young Children in Foster Care: Using Countertransference Reactions to Facilitate the Therapeutic Process, on pages 57 through 61 of the April/May 2002 issue of *Zero to Three* should have read as follows:

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We apologize for any inconvenience this may have caused the authors or our readers.

ZERO TO THREE

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Parental Preoccupation and Perinatal Mental Health

Photo: Marilyn Nolt

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Parenting is a stage in life, a personal choice, a psychological transition, a psychobiological condition, a cultural creation, a necessity for the species, a political icon, a state of mind. For some, the word conjures up memories of the past; for others, the anticipated and desired; and, for many, an idealization. While each of these characterizations draws on a different discipline and different perspective on how adults care for children, their multiplicity underscores how the real and imagined roles of parents are woven through our developmental and psychological landscape. Much of the study of parenting has focused on how parents care for their infants and young children; less often has the focus been on how adults become parents, how they make the normative psychological (and necessarily biological) adjustment and reorganization that takes place when an adult is either pregnant or anticipating the birth of his or her child.

During this period, adults are faced with assuming the responsibility for caring for another more dependent person and for appreciating, even anticipating — with few cues — both the physical and psychological needs of that person. Assuming that responsibility does not negate or lessen other responsibilities both to self and others, but rather requires a deliberate reordering of those responsibilities. One fruitful perspective is to consider parenting from an ethological perspective (Hinde, 1974; Leckman & Mayes, 1998). In this light, we might think of caregiving behavior as an evolutionarily conserved behavioral system that has characteristic features, a predictable time course, and an underlying neurobiology. As such, it is one of several competing motivational/behavioral systems for parents. Parents must also consider the needs of the other children in the family, their occupational duties, the needs of the marital relationship, and the demands of the larger social group. It may also be appropriate to broaden the concept of a behavior system to include related emotional and mental states as well as behaviors (Hinde, 1974). Specifically, studies of pregnancy and the months after delivery show the characteristic thoughts and emotions that are associated with aspects of early parental caregiving behavior and with the psychological transition that adults must make in order to care of an infant (Leckman et al., 1999). We shall return later to the possible merits of taking an evolutionary point of view of parenting but, for now, consider the changes in mental focus and states that need to happen for an adult to become a parent.

The author is especially grateful to Dr. James Leckman, her close colleague and collaborator in the work described in this article.

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Primary Maternal Preoccupation and the Internal Life of the Parent

Winnicott (1956) captured the experience of entering into the "state" of parenthood in his concept of primary maternal preoccupation. Describing the state as "almost an illness," he called attention to the psychological experience that mothers must have and recover from in order to create and sustain an environment that can meet the physical and psychological needs of their infant. Winnicott suggested that this special psychological state begins in the third trimester and continues through at least the first months of the infant's life. Although this concept has been incorporated into many clinical formulations of failed or disordered mother-infant interactions, it has received little attention as a normative process. That is, how much do both men and women need to become psychologically preoccupied with their infant-to-be in order to make room in their minds, as it were, for a new person, and in order to be able to care for that infant and be attentive to all of his or her physical and psychological needs?

For the most part, studies of parenting have focused on parent-child relationships and centered on the impact of those relationships on the functioning of the child. Studies of parenting have focused primarily on the impact of parental behavior on children's development, on the development of attachment organization in the child (e.g., reactions to separations, seeking proximity to parents), and on the moment-to-moment functioning of the parent-infant dyad with the presumption that such impacted the child's development. Decades of research from these perspectives have demonstrated the highly specialized nature of parental verbal and nonverbal behaviors with infants, the importance of synchrony and reciprocity in parent-infant interactions, and the critical impact of early relationship experiences for attachment to the parent and for other future intimate relationships. These studies have underscored the potential negative impact of early parental deprivation, neglect, and/or severe depression on the development of infant social capacities and the importance of parental marital adjustment, self-esteem, and social supports for successful adaptation to caring for a newborn.

at a glance

- During the third trimester of pregnancy and the first months of an infant's life, both men and women are psychologically preoccupied with their infant-to-be, which prepares them for taking care of the infant.
- Numerous neurobiological agents – including estrogen, prolactin, and oxytocin, dopamine, norepinephrine, and perhaps stress response agents such as cortisol – and specific genes act in the brain to promote maternal behavior.
- Recent animal studies and growing evidence among humans indicate that a caregiver's maternal behavior "programs" her offspring's subsequent adult maternal behavior.
- Early intervention programs can produce enduring behavioral and psychological consequences for children by intervening during the period surrounding birth.

However, relatively neglected in these lines of research are adults' thoughts regarding their roles as parents and the place of the infant in their own lives. Understanding that parents usually adopt a special and necessarily different manner of behaving in interactions with their infant is different from understanding how and why they perceive themselves to be behaving in response to their feelings about their infant and about being a parent. Moreover, asking what allows adults psychologically to care for their infant is different from, though related to, asking what happens when adults fail to care for their infant or when attachments are disturbed or disrupted. How do parents make room in their minds for their new baby and their new role? How do parents experience psychologically that transition, and are there commonalities in these transitional mental processes across parents that shed light on what is needed for adults to assume the parenting role?

For both parents, pregnancy and the immediate perinatal period involve an altered mental state characterized by excitement and heightened sensitivity to environmental and emotional cues. A study at the Yale Child Study Center followed 41 couples longitudinally through their pregnancy and up to 3 months after birth and focused on their thoughts, feelings, and behaviors (Leckman et al., 1999). In detailed interviews with couples in their eighth month of pregnancy, shortly after delivery, and when their baby was 3 months old, we asked mothers and fathers, independently, to describe their thoughts and actions at each of these time points. At each time point, parents were asked about their level of preoccupation and the content of the thoughts most on their minds.

Drawing on findings from this study and from others' related work, it seems clear that the fetus and infant become an increasingly exclusive focus of thought and action toward the end of pregnancy and the early postpartum period. Cues from the infant before and after birth as well as the infant's proximity, physical appearance, and temperament provide a major stimulus for these preoccupations and associated behaviors. Potential threats from the external environment provide another source of stimuli. During pregnancy, both men and women spend a great deal of time thinking about the pregnancy and about the baby yet to be born. The content of these preoccupations vary for men and women, though their intensity may be similar. Men may think about becoming fathers, the sexual intimacy, their potency or virility, as well as how they will care for their pregnant partner. A man may imagine how it will feel to have others see his partner pregnant and know that he has fathered a baby. He wonders how healthy or

vigorous his sperm is. He imagines how he will manage the delivery: Will he be present? How will he handle the waiting? Will he be cool and supportive? Will the baby be healthy? How well will he then provide for his partner and their new baby?

Women imagine how pregnancy will change their bodies; how for 9 months they will have the biological responsibility of providing a nurturing, safe world for the baby; and how they will feel when the baby begins to move. A woman may also worry about potency: How healthy are her eggs? Is she able to carry a baby for the full pregnancy? Is she strong enough for the labor and delivery? How good will her milk be? Will she and her partner know what their baby needs, are they up to the task of parenting, or will she match her own ideal of the "good mother"?

This intensive fantasizing and preoccupation prepares the psychological ground for taking care of the infant once it is born. After birth, the content of parental preoccupation includes thoughts of reciprocity and unity with the infant and thoughts about the infant's perfection. At 2 weeks after delivery, mothers of normal infants, on average, report spending nearly 14 hours per day focused exclusively on the infant, and even when women return to work, thoughts about their infant fill or intrude upon their work day and interfere with their ability to concentrate.

In our study, parents reported feeling great elation, a completely altered state of being, a sense of being completely fulfilled, joyful beyond words, and of accomplishment and perfection beyond their imagination. And this sense of perfection carries over to the baby. Prolonged attention to physical details and similarities to one or both parents occupy considerable amounts of time. Parents pour over every aspect of their infant's body in long reveries and often express with considerable relief a feeling that everything is just right, just perfect. Cross-cultural studies support the notion that in the first weeks after delivery many parents see themselves as psychologically one with their new infant. As an example, Siriono tribesmen in Bolivia change their names with the birth of each infant, taking the infant's first name as their own, with a suffix to indicate father or mother. In this way, they indicate a state of emotional oneness with their new child.

"For both parents, pregnancy and the immediate perinatal period involve an altered mental state characterized by excitement and heightened sensitivity to environmental and emotional cues."

On the other side of a sense of perfection, oneness, and blissful elation are intrusive worries about unexpected imperfections, illnesses, injuries, or more generally, bad things happening to the baby. In our study, we found that 95% of mothers and 80% of fathers reported recurring, intrusive thoughts about their baby's well-being at 8 months of gestation. In the weeks following delivery, this percentage declined only slightly to 80% and 73% for mothers and fathers, respectively. Others have reported similar findings of increased worries that intrude upon a parent's contentment and confidence and may strain relations between couples long before the delivery. After delivery and on returning home, more frequently cited concerns are about feeding the infant, about understanding the baby's cries or other signals, keeping the baby safe, and also about the parents' abilities to stay healthy themselves in order to care for the infant. Less commonly, parents endorse fantasies or worries that they may in some way inadvertently harm their infant, for example, by dropping the baby or, in a time of exhaustion or frustration, more actively ignoring or injuring the baby. Surely, such persistent worries, even those of harming the infant, are commonly observed among parents of, for example, preterm infants or infants with serious birth complications or congenital disorders or malformations. And among many mental health clinicians, such worries are often taken as concerning clues of potential disturbances in early parent-infant attachment. But normative studies suggest that in late pregnancy and in the first months after delivery, these preoccupations with more negative, anxiety provoking content are very common and very normative. It is their persistence beyond the first 3 to 6 months that may signal difficulties in the parent-infant relationship.

The relation between these profound states of preoccupation and the feeling of oneness and exclusivity with the infant and altered, special behavioral repertoires is suggested in part by the well-known studies of reciprocity and behavioral synchrony between adults and their new babies from the first hours after birth. Both mothers and fathers adjust the pitch and prosody (rhythmic intonation) of their speech to the response and behavioral rhythm of their infant; they speak in a higher pitch and more slowly, with exaggerated prosodic markers. They also exaggerate their facial expressions and maintain direct, unremitting gaze for far longer than is normative in adult conversation or even in interactions between parents and their older children. Parents report spending long times looking at their infants to the exclusion of all else and of checking on their baby repeatedly even when they know that the baby is safe and well.

This heightened sense of vigilance about possible threats to the infant's well-being surely remain a part of parenthood, even long after their child is self-sufficient. But it is especially heightened during the latter part of pregnancy and the first year. Parents preoccupy themselves with creating a safe and secure environment for their baby. Major cleaning and renovation projects are commonplace as the human form of nest building unfolds during a pregnancy. Parents also report feeling compelled to these actions and anxious if prevented from accomplishing them

even though they recognize that their behaviors may be extreme, exaggerated, or even unwarranted (e.g., that the baby is safe, the room and clothes thoroughly clean and warm). Community and cultural rituals (baby showers, baptism) not only mark the infant's arrival into a larger community but also have an element of safeguarding and protective actions.

Similarly, preoccupation with babies' physical perfection is given behavioral voice not only in the already mentioned detailed reveries about the details of their body and appearance but also in the choice of clothes that may have special meanings. Parents often choose clothing that indicates their wishes and fantasies for their child or bears a special relationship to their family, such as the clothes they wore as an infant or clothing made by one or more grandparents. Special oils, shampoos, and perfumes only further adorn the infant's perfection and add to his or her physical comfort. Again, in and of themselves, these behaviors are not unusual in the commonality but they are part and parcel of the intense state of preoccupation characterizing the first months after a baby is born. These behavioral sets lessen in intensity after the first 6 months when, we might say, the baby is safe and, if all has gone well, has a firm place in the parents' psychological structure.

"The nature of early caregiving experiences can have enduring consequences on individual differences in subsequent maternal behavior, patterns of stress response, and anxiety regulation."

Neurobiological and Genetic Underpinnings of Parental Preoccupation

The parental behavioral system, in particular the capacity for heightened sensitivity and preoccupation, is also neurobiologically and genetically regulated (for review, see Leckman & Herman, in press). Considerable progress has been made in model mammalian species in defining the neural circuitry and neurobiological substrates of the behavioral system for parental care, although these remain largely unconfirmed in humans. Studies in rodent models indicate specific subcortical regions in the brain as central to the regulation of pup-directed maternal behavior. Estrogen, prolactin (a neurohormone facilitating milk production), and oxytocin (an endogenous neurohormone also administered to women to facilitate labor) act in the brain to promote maternal behavior. Oxytocin not only results in milk ejection during nursing and uterine contraction during labor but also facilitates maternal behavior in estrogen-primed nulliparous female rats. Conversely, postpartum animals treated with a drug that blocks the action of oxytocin or with damage to the oxytocin-producing area of the brain do not respond to their pups. Neither the drug nor damage to the oxytocin region of the brain have an effect if the mother has been with her pups for several days. Oxytocin may initiate but not maintain maternal behavior.

Other neural systems that appear to play a crucial role in facilitating maternal behavior are the neurochemicals dopamine and norepinephrine, both belonging to a class of neural hormones called monoamines. These monoamine systems constitute a value or reward system in the brain that guides and reinforces mammals to know what is important in their environment. These so-called "salience" systems are distributed throughout the brain and so their response to evolutionarily important cues such as a pregnancy or a new infant increase the probability of adaptive behaviors in response to these events. These monoamine pathways are likely to be crucial for the behavioral sequences seen in early parenting. For example, nursing animals given a drug that impairs norepinephrine nerve cells show a persistent deficit in retrieving their pups but continue to nurse, nest, and protect their pups.

It may also be that our stress response systems, those producing and associated with cortisol release in the brain, are involved in maternal behavior. For example, mothers with high levels of circulating stress hormone were better able to identify their own infant's odors. In these same first-time mothers, the amount of affectionate burping, stroking, poking, and hugging by the mother was associated with higher levels of cortisol, findings suggesting that our stress response systems are also activated during the time of heightened maternal sensitivity surrounding the birth of a new infant. Thus, it appears that the initiation and maintenance of maternal behavior involve a specific neural circuitry. With pregnancy or with repeated exposure to offspring, structural and molecular changes occur in subcortical area of the brain that reflect, in part, an adaptation to the various homeostatic demands associated with maternal care.

Another of the more notable lines of work of the last few years is the genetic regulation of maternal behavior in mammalian species. It is now possible to delete certain genes (called "knock-out models"); these have provided new insights into the molecular basis of maternal behavior that are congruent with the existing neurobiological literature. At least nine genes have been identified that are necessary for the expression of one or more aspects of maternal behavior. These genes regulate oxytocin, prolactin, estrogen, and aspects of the monoamine system, the same neural circuitry identified in studies using other techniques.

Parental Preoccupation, Romantic Love, and Caregiving

In other studies at the Yale Child Study Center, we have proposed that there is a remarkable mental, behavioral, and, as it turns out, neurobiological similarity

between parental and romantic love (Leckman & Mayes, 1999). It is possible that the commonality is the mental and behavioral systems supporting affiliation and the formation of new reciprocal relationships. These highly conserved behavioral systems — including especially the capacity to become preoccupied and focused on another person -- enhance the formation of closer relationships between parents and their infants and between two adults, and thus, contribute to the propagation of our species. These systems can be turned on and off during the course of development at particular points in time (e.g., pregnancy) and in response to particular environmental cues (e.g., attraction to another person). Viewed from an evolutionary perspective, it seems reasonable that the mental and behavioral repertoires associated with the establishment of adult romantic bonds and early parenting skills would be subject to intense selective pressure. The adaptive value of heightened sensitivity and primary parental preoccupation are clear. In order for our genes to pass on, sexual intimacy must occur and the offspring of such unions must survive.

"Although mindless, natural selection has sculpted parental mental states and behaviors from gene products and neurobiological systems over millions of years."

Pregnancy and the first years of an infant's life are fraught with danger. It has only been in the past few centuries that living environments, food standards, and health care systems have reached a point where the rate of infant mortality has fallen below rates of 1 per 100 even in the most developed nations. Indeed in some parts of the world, more than 1 in 5 infants still fail to reach their first birthday. Thus, the physical and psychological environment must be shaped to ensure the family's safety and set the stage for the infant's healthy development. From an evolutionary point of view, it is unlikely that nature left courtship and parenting to chance but rather that families of genes to some degree shape these behaviors. Although mindless, natural selection has sculpted parental mental states and behaviors from gene products and neurobiological systems over millions of years. The search for reciprocal relationships provides an avenue for procreation and in turn for establishing rhythmic, reciprocal relationships with the infant. Intrusive thoughts focused on the well-being of the infant (or romantic partner) make the parent or partner in tune to potential threats to the other's safety and survival.

Also, the heightened sensitivity and preoccupation of parents early in their infant's life sets the stage for the parenting abilities of their adult offspring. It is a long-stated clinical truism that we parent as we were parented. Recent studies of animal models lend important support to the transmission of parenting behaviors along nongenetic pathways (Francis, Champagne, Liu, & Meaney, 1999). In general, findings from these studies suggest that maternal behavior in the days following birth serves to "program" the subsequent maternal behavior of the adult offspring. For example, rodent mothers display naturally occurring variations in maternal behavior, especially levels of licking and grooming. The amount of licking and grooming a female pup receives in infancy is associated with how much licking and grooming she provides to her offspring when she is a mother. Cross-fostering studies provide evidence for nongenomic transmission of parental patterns of care. In these experiments, female offspring of the low licking and grooming mothers became high licking and grooming mothers if they were fostered to high licking and grooming mothers. The converse was also true, namely that the female offspring of the high licking and grooming mothers became low licking and grooming mothers if they were fostered by low licking and grooming mothers. The amount of maternal attentiveness also appears to establish the pups' level of central nervous system-based reactivity to stress and to influence aspects of learning and memory in the adult offspring. Further, many of the brain regions implicated in these experimental interventions are the same as those identified in the knockout gene and brain lesioning studies described above. Although many of these findings are from rodent models, investigations in social primates also highlight the importance of early mothering in determining how the daughters will mother. It seems clear in primates that the effects of early maternal deprivation may be difficult to reverse, such that many maternally deprived monkeys are able as adults to function normally under normal conditions but are unable to cope with psychosocial stressors. Thus, despite genetic constraints, the nature of early caregiving experiences can have enduring consequences on individual differences in subsequent maternal behavior, patterns of stress response, and anxiety regulation.

Early Intervention: Understanding Parental Preoccupation

These behavioral, neurobiological, and genetic and neurobiological studies may also inform clinical practice, particularly early intervention programs for high-risk expectant parents. Increasing clinical and epidemiological data support the view that exposure to early adverse environments underlie vulnerability to altered physiological responses to stress and the later expression of mood and anxiety disorders. Conversely, among the positive outcomes is a resiliency to subsequent adversities in life and a capacity to be a good enough parent for the next generation. Similar to the findings observed in rodent models described above, there is a growing body of evidence also indicates that human caregivers' levels of responsiveness to

their children can be traced in part to the caregivers' own child-rearing histories and attachment-related experiences. Thus, it is possible that effective early intervention programs may have consequences for several generations. Many early intervention programs for pregnant women (which are described in this issue of *Zero to Three*) target the earliest interactions between mother and infant.

In general, findings from selective early intervention programs indicate that the interval surrounding the birth of the infant is a critical period that likely has enduring behavioral and psychological consequences for that child. Thus far, the most compelling findings suggest that early intervention programs are likely to reduce a variety of maladaptive outcomes in children as adolescents such as early involvement in the juvenile justice system. Less clear is the impact of these early interventions on the later rates of depression and anxiety disorders or on an individual's stress responsivity, susceptibility to drug abuse, or capacity as a parental caregiver. These long-term follow-ups of early interventions are yet to be done.

But most early intervention programs that aim to change the behavior of a mother with an infant do not focus on the psychological transition that an adult must make to be a parent or on the "state of mind" behind parental behavior; this brings us back to the critical function of parental preoccupation and heightened sensitivity to their baby. Understanding how adults view themselves as parents is as critical as how they behave as parents and may well specify and refine any intervention for a given parent-child dyad. It may be that a parent's capacity to become engrossed and intensively focused on his or her infant is a possible proximal predictor of individual differences in response to any early intervention. Those parents who are able to better learn to make room for their infant in their own internal worlds may be functionally more receptive to the behaviorally directed interventions designed to support their physical care of their infant.

Conclusion

Becoming a parent is about understanding the needs of those who are more dependent, less developmentally mature, and needful of the care and protection of an adult who has their interests and wants as a core preoccupation. How adults transition to being parents and parental caregiving includes a set of highly conserved set of behaviors and mental states that may reflect both an individual's genetic endowment and early experiences of being cared for as a child. Indeed, while we have focused on the process of adults' becoming pregnant and anticipating the birth of their child, there are many other forms of parenting—such as adoption, foster care, step-parenting, teaching, mentoring, and grandparenting. Each involves understanding the needs of those who are more dependent, less developmentally mature, and needful of the care and protection of an adult who has their interests and wants as a core preoccupation, and each probably involving these highly conserved affiliative systems that permit us to become preoccupied and focused on caring, love relations.

Viewing parenting in any of these forms as an interaction among genes, past parenting, current experience, psychological state, neurobiological salience systems, and environmental constraints brings many disciplines to the study of parenting. No one discipline — even within the social or basic sciences — can lay claim to studies of parenting as its primary domain of expertise. Parenting by its very nature is a multidisciplinary study. Close collaboration between clinicians and those who develop parent-infant intervention programs has been long standing. But the "new science" of parenting needs to bring together basic scientists — neurobiologists, geneticists, neuroimagers — with cognitive and social psychologists, social scientists studying attachment, anthropologists, obstetricians, pediatricians, and infant and child developmental specialists. The special focus on how adults make room for their new infant, what we might call the field of "perinatal mental health" that we discuss throughout this issue, is concerned not only with facilitating healthy babies but also with helping adults make the transition to their new role and to understanding the genetic, biologic and psychological contributions to that transition.

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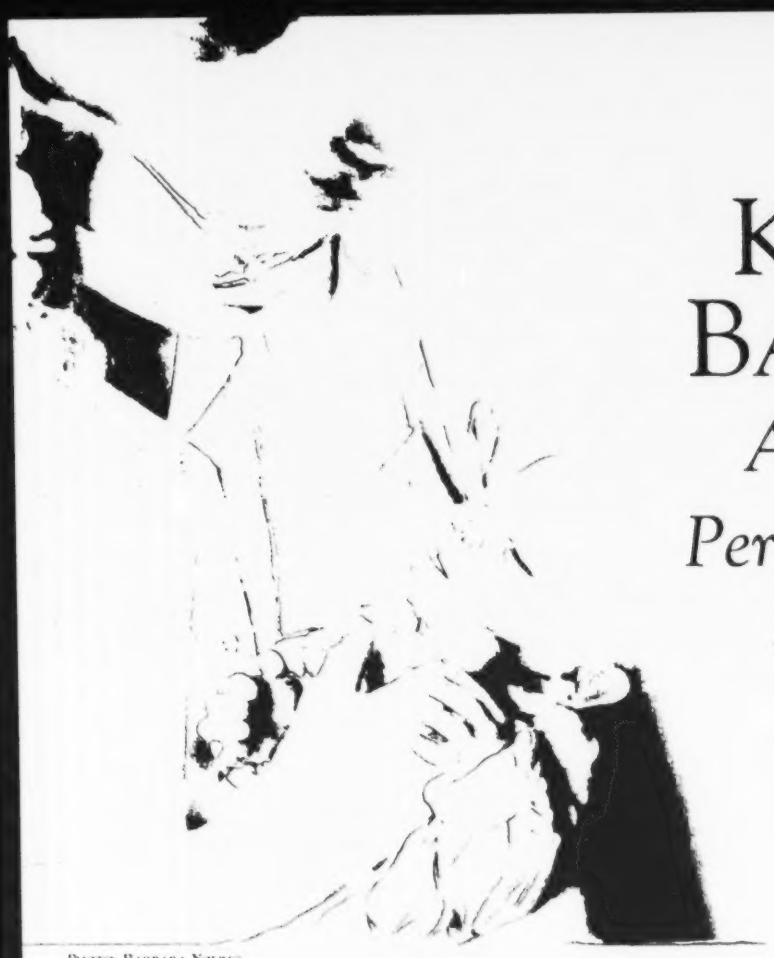

PHOTO: BARBARA YOUNG

KEEPING THE BABY IN MIND:

A Critical Factor in Perinatal Mental Health

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The time between a woman's discovery that she is pregnant and the baby's first smile is one of great crisis and opportunity. It is a time of enormous change and upheaval: for the individual woman, whose body and identity shift in concert, and who begins almost instantly to form a psychological relationship with her unborn child; for family members, who must reconfigure to make room for a new voice; and for the community, which must rally to care for the new mother, her new baby, and the family. Most important, it is the beginning of life for the baby, the beginning of a long and complex journey whose contours are established during the first months and years in the world. It is the time when babies learn their very first lessons about people, about feelings, and about relationships.

The perinatal period, thus, is a highly vulnerable time, filled with the potential for transformation, and with the even greater potential for repeating old patterns of relatedness and intimacy. For mental health providers, the rate and complexity of developmental reorganization across so many physical and psychological domains make this a moment ripe for intervention and ripe for change. The mother is just developing a sense of herself as parent to *this baby*; the child's mind, in all its aspects, is just beginning. However, also inherent in such change processes are dangers: The psychological and hormonal changes of pregnancy can trigger or potentiate severe psychopathology in the mother, and thus contribute to the establishment of disrupted, troubled mother-child relationships, the effects of which can continue to be felt across generations.

There are many ways to think about intervention and prevention during the perinatal period, about the spectrum of disturbances that require the attention of mental health providers, and about the spectrum of approaches that can and must be used to insure maternal and infant mental health. As I will describe here, and as is described elsewhere in this issue, staff members at the Yale Child Study Center are developing a range of prevention and intervention programs for the promotion of perinatal and infant mental health. Central to these various programs are our efforts to develop maternal reflective capacities. That is, we seek to enhance, from pregnancy on, the mother's capacity to keep the baby in mind.

The author acknowledges the many contributions of the Parents First and Minding the Baby teams at the Yale Child Study Center, in particular ongoing collaborations with Linda Mayes, Lois Sadler, and Michele Goyette-Ewing, without which the work described here would not be possible.

Keeping the Baby in Mind: The Reflective Function

For decades, infant and attachment researchers have emphasized the critical role of maternal sensitivity in promoting a range of positive biological, cognitive, and relational outcomes in the child. And indeed, much of the work of early intervention programs has focused upon enhancing maternal sensitivity and responsiveness. However, the recent work of a group of British psychoanalysts and child developmentalists — Peter Fonagy, Mary Target, Miriam Steele, and Howard Steele — has turned our attention to the internal qualities that allow mothers to be sensitive. They have focused upon an individual's capacity for "reflective functioning" (RF), her capacity to understand that her own or another's behaviors are linked in meaningful, predictable ways to underlying mental states, to feelings, wishes, thoughts, and desires. In other words, RF refers to the awareness that an individual's behavior is a reflection of underlying, likely unobservable, changing, dynamic intentions and emotions. Human beings naturally try to understand each other in terms of mental states, in order to make sense of and even more importantly, to anticipate, each other's actions (Fonagy & Target, 1998). Fonagy considers the reflective function to be a crucial aspect of what he calls the Interpersonal Interpretive Mechanism, the "uniquely human capacity" to process interpersonal experience and make sense of each other (Fonagy, Gergely, Jurist, & Target, 2001).

In their original work, Fonagy and his colleagues (Fonagy et al, 1995) examined parents' capacity to reflect upon their childhood experiences with their own parents. Parents high in RF had the capacity to see their parents' experience as separate and distinct from their own. For example, an adult might understand that his mother's harsh treatment was the result not of his own intrinsic badness, but of his mother's depression and anger at her own mother's physical abuse. Children develop the reflective capacity as a function of interpersonal experience. A mother's capacity to hold in her own mind the notion of her child as having feelings, desires, and intentions allows the child to discover his own internal experience via his mother's experience of them. In essence, the mother provides a secure base for his discovery of his own feelings and thoughts, and for his developing a sense of himself as both connected to and separate from her.

Reflective abilities are inherently linked to affect regulation: A mother's recognition of a link between her infant's mental states and behavior will make it possible for her to develop a mental model of his experience, and thus aid in the his developing capacities for self-regulation. Likewise, her capacity to appreciate the dynamics of her own affective experience is regulating as well. Fonagy suggests, in fact, that the Interpersonal Interpretive Mechanism is further related to stress and attention regulation. Indeed, there is now a growing literature supporting the notion that disrupted relationships — and, implicitly, caregivers' inability to hold their children's experiences in mind — contribute significantly to elevated stress hormones and fragmented attentional processes. Over the past 5 years, Fonagy and his colleagues have documented strong links between a mother's reflective capacity and her own attachment security, as well as that of her child. This is particularly the case for traumatized mothers, because RF appears to mediate the effects of trauma upon caregiving. Thus, deprived and traumatized mothers with high reflective capacity were highly likely to have secure children, whereas deprived mothers with low reflective capacity almost invariably had insecure children (Fonagy et al., 1995). A mother's RF has also been linked to social cognition, particularly to the theory of mind reasoning in children (Fonagy, 1996).

The term "reflective functioning" refers, in part, to a cognitive process, namely an individual's *understanding*. In this sense, it refers to metacognitive processes such as perspective taking and monitoring one's attention and experience. At the same time, however, it refers to an *emotional* process, namely the capacity to hold, regulate, and fully experience emotion. It refers to a nondefensive willingness to engage emotionally, to make meaning of feelings and internal experiences without becoming overwhelmed or shutting down. The complex processing and integrating that is inherent in high RF bespeaks emotional richness and depth, and a capacity to appreciate and experience the dynamics of an internal and interpersonal emotional life.

Maternal RF and Her Relationship With Her Child

In recent work, we have begun to apply this construct to mothers' understanding of their children's internal experience. That is, we have begun to study maternal RF as it pertains to the developing relationship with the child. We have asked – in a series of research investigations – how maternal RF contributes to positive outcomes in the child. Central to

at a glance

- Reflective functioning is a cognitive and an emotional process that indicates a capacity to understand the dynamics of an internal and interpersonal emotional life.
- High maternal RF makes it possible for a mother to accurately read a child's intentions and feelings and to respond sensitively.
- An intervention model has been developed that focuses on a mother's capacity to identify her own affective experience and to recognize and respond to her child's experience, but not, per se, on the *meaning* underlying her feelings.
- The Parents First intervention program emphasizes taking a fresh look at the meaning behind a child's behavior or feeling, rather than strategies or specific solutions.
- The Keeping the Baby in Mind project trains home visitors to continuously model reflective awareness in everyday caregiving and nurturing.

our work is the Parent Development Interview (Aber, Slade, Berger, Bresgi, & Kaplan, 1985), a 45-item clinical interview designed to examine a parent's experience of his or her relationship with the child. Our preliminary studies indicate that a mother's capacity to understand her own or her child's behavior in terms of mental states is significantly related to her own attachment status, her child's attachment status, and to disrupted affective communication in the dyad. Even more important, maternal reflectiveness appears to mediate the relation between adult and child attachment; thus, a mother's capacity to reflect upon and understand her child's internal experience is what accounts for the relation between attachment status and her child's sense of security and safety (Grienenberger, Kelly, & Slade, 2001; Slade, Grienenberger, Bernbach, Levy, & Locker, 2001). In a third study of the relation between drug dependence and RF, mothers who abused cocaine during their pregnancies were significantly less reflective than their equally disadvantaged, but cocaine free counterparts (Levy, Truman, Slade, & Mayes, 2001). Maternal RF also has been found to predict child attention, withdrawal, social skills, and adaptability to parent distress and parent-child dysfunction, and to mediate the link between drug use, child social skills, parent distress, and parent-child dysfunction (Levy & Truman, 2002). Schechter and his colleagues (Schechter et al., 2002) have documented changes in maternal RF following a single videofeedback session in traumatized mothers and their babies. These results linking maternal RF to both child and parent outcomes strongly suggest that these are qualities we need to target for intervention.

"A mother's capacity to reflect upon and understand her child's internal experience is what accounts for the relation between attachment status and her child's sense of security and safety."

What does maternal RF look like? An essential aspect of RF is the mother's capacity to recognize that the infant or toddler has mental states – that he has feelings, thoughts, and intentions of his own: "He's *sad*." "She's *angry*." "He *likes* bananas." "She *knows* I'm gonna' feed her." " He *wants* to go outside." But it is her capacity to *link* this awareness of her child's or her own internal state to behavior or to other internal states that is the hallmark of true reflectiveness: "He threw a tantrum in the store (behavior) *because* he was *tired* and *hungry* (physical state), and I'd been dragging him around all day and he was *sick of it* (mental state)." "I was just so *sad* and *frightened* (mental state) by the fight I had with my husband. I wasn't *myself* at all (behavior) and this was so *disorienting to my baby* (implies effect upon baby's mental state)."

Finally, an example of a highly reflective mother, who makes sophisticated links between her own and her child's mental state and behavior throughout: "Sometimes she gets *frustrated* and *angry* (child mental state) in ways that *I'm not sure I understand* (link to mother's mental state). She points to one thing and I hand it to her, but it turns out *that's not really what she wanted* (child mental state). It *feels very confusing to me* (mother mental state) when *I'm not sure how she's feeling* (link to child mental state), especially when she's upset (child behavior). Sometimes *she'll want to do something* (child mental state) and I won't let her because it's dangerous, and so *she'll get angry* (child mental state). I may try to pick her up and she obviously didn't want to be picked up because she's in *the middle of being angry* (appreciation of the process of child's mental state) and I interrupted her. In those moments it's *me who has the need to pick her up and make her feel better, so I'll put her back down* (distinguishes own needs from those of child)."

These examples of high RF vividly convey how a reflective mother grasps the complex interplay between her own mental state and that of her child, between her internal experience and her behavior, and between her child's internal experience and behavior. Highly reflective mothers understand that mental states can be ambiguous, that they change and de-intensify over time, and that they can be hidden or disguised. These are mothers with a keen sense of how emotions *work*, what makes them and their child "tick". These are mothers who are – to use the Robert Emde's term – emotionally available to their children. As suggested by the research described above, a mother's capacity to make sense of her child's mental states, as well as of her own, is intrinsic to sensitive parenting. The mother who understands that her child is fussing *because* he is hungry or frightened, that her child's distress has both a meaning and a trajectory of its own, or simply that he is having a feeling that she doesn't share or understand is by definition keeping her baby – his needs, his desires, and his feelings – in mind. And in so doing, she can respond to her child in ways that are sensitive, containing, and regulating. From an intervention standpoint, this is the critical issue. Contingent, sensitive responding *depends* upon an accurate reading of the child's intentions and feelings, upon the mother's emotional availability. The reflective function is what makes this possible.

Low maternal RF takes many forms. On the one hand are mothers who seem to have little notion of their baby's internal experience. These mothers may simply seem oblivious to the fact that their child has feelings or thoughts that are particular and personal to him. When asked, for instance about their child's reaction to separation, they may respond: "I don't know," "Nothing," or "Fine." Others focus, instead, on personality and behavior: "He's cute," "He's pig-headed," or "She's pushes me around." Other mothers may describe but not reflect their child's distress or anxiety: "She clings to me, but she's fine." "She wakes up in the night screaming, screaming, but nothing really bothers her." Of course there are the more malevolent reflections: "He's a devil, just like

his father, and I have to keep a close watch on him." " She's just bad, bad, bad, and there's nothing can be done about it." Finally, mothers often deny their own internal experience in relation to parenting; for instance, responding "No" to questions about the most common feelings of parenting, namely guilt, anger, and joy. The range of responses briefly described here are characteristic of mothers who simply will not or cannot enter their child's experience as a means of understanding them, and who do not use their own internal experience as a guide to sensitive responsiveness. In clinical terms, they are highly defended, and resort to primitive means of blocking out or distorting their child's internal life.

A mother's reflective capacity is different from, but related to, her attachment organization, although the research briefly described above suggests that RF is critical to the intergenerational transmission of attachment. Inherent in the notion of adult attachment security is a mother's capacity to attend to and make coherent meaning of her own and her parents' internal experience; RF is thus a critical aspect of a secure attachment organization. Inherent in the notion of a parent's insecurity, however, is the distortion, denial, or misreading of the child's mental state; that is, low or distorted reflectiveness. These disruptions are central to the development of disturbed and dysfunctional mother-child relationships. Indeed, they are often of most concern to early interventionists: the misattribution of mental state, the obliteration of the infant's intention, the obliviousness to the child's basic rhythms and cycles of arousal.

"[Research] results linking maternal RF to both child and parent outcomes strongly suggest that these are qualities we need to target for intervention."

Selma Fraiberg, whose work set the course and the gold standard for all subsequent work in early intervention, did not use the term "reflective functioning," but her papers provide us with wonderful examples of the power of a mother's discovery of her own and her baby's internal states, and the *link between these experiences*. Fraiberg and her colleagues used remarkably straightforward techniques to bring the baby's experience into the mother's consciousness, to begin to help mothers accurately read their babies' signals and *underlying intentions*. She was the first to "speak for the baby." But this was not sufficient to provoke demonstrable change in mothers' sensitivity and responsiveness to their babies. Her therapeutic successes evolved from the development of the mother's capacity to *link* her baby's experiences to her own. It was through this process that the mother could see her baby as separate from her, needing a mother who would know and take care of him, just as she herself had needed mothering so long ago. From Fraiberg's perspective, developed within the framework of psychoanalytic, dynamic psychology, it is the link between the present and the past that is crucial to change. From the point of view of developing maternal reflective capacities, however, it is the link between mental states, and between mental states and behavior, that is at the heart of healthy mother-child relatedness. At times, these connections develop through an examination of past-present links; at others, they may more simply arise through the process of reflection as it pertains to daily, relational experience.

Within the early intervention and infant mental health literature, our understanding of the parental side of attachment and of healthy parent-child relationships has been greatly enhanced by Alicia Lieberman's work on parental attributions and Charley Zeanah's work on the quality and coherence of parental representations of the child. Lieberman has written beautifully about the complex task of untangling distorted, negative, and malevolent representations of the child within the course of infant-parent psychotherapy, the slow and painstaking separating out of the mother's own fears and aggression from her representation of the child. Likewise, Zeanah has written about the development of balanced, disengaged, and entangled representations of the child. Secure and coherent models of the complexity of the child's internal experience contrast sharply with those that deny the child's internal experience, or — even more disturbingly — distort such experience in self-serving and chaotic ways. These latter models invariably lead to poor developmental and relational outcomes. The work of Lieberman and Zeanah gives us a way of thinking about the dimensions of low reflectiveness within the context of disturbed mother-child relationships. Distorted or unelaborated representations of the child are a direct manifestation of the mother's inability to hold in mind or reflect upon her child's experience. Indeed, change in infant-parent psychotherapy is a direct outgrowth of the therapist's implicit focus on the mother or caregiver's reflective capacities. Because the reflective function allows for the representation of dynamic and complex internal experiences, it is intrinsic to the development of coherent, affectively vital, and organized representations of the self and of the baby. It is for this reason that we have begun developing treatment and intervention models that specifically target the development of RF.

Keeping the Baby in Mind: A Critical Factor in Perinatal Mental Health

Optimally, the process of keeping the baby in mind begins early in pregnancy, and at all levels of experience. It takes place on a cultural and familial level, as the broader community prepares the mother for her journey. Every culture has a way of embracing the woman's new identity and welcoming the child, and of holding the complexity of the joyful, arduous, and sometimes dark moments of pregnancy, childbirth, and new motherhood. Making room takes place at the physical level, as anatomical, biological, hormonal, and neurological changes literally make room for the baby

(Mayes & Cohen, 2001). Finally, and most important from the point of view of perinatal mental health, the mother begins to make emotional room for the child. This first takes place at the level of imagining: She begins to imagine her baby, and herself as a mother (or if not a first pregnancy, herself as mother to *this* child). As her body changes and delivery approaches, imagining slowly becomes reality. Myths abound about the bliss of pregnancy. And yet, it has often been observed that – even under the best of circumstances – this can be a time of great anxiety, mood dysregulation, and general emotional turmoil. Given all the ways in which the woman is making room for the baby, and for herself as mother, this hardly seems surprising.

The derailment of the caregiver-child relationship that is the focus of infant-parent psychotherapy almost always begins in pregnancy. Indeed, this is why intervention before the birth of the baby is so critical. The degree of psychological reorganization necessary for a healthy adaptation to parenthood is enormous (Cohen & Slade, 1999). It is for this reason, of course, that the process of a mother's imaginings becoming reality, of developing representations of the self as parent and caregiver, of the child, and of the relationship is so vulnerable to distortion and disruption. We can begin to observe the degree to which a mother is making room for her baby early in the pregnancy, and – as the pregnancy progresses – we can begin to understand the shape and dynamics of her psychological readiness for motherhood (Slade & Cohen, 1996). During pregnancy women high in reflectiveness will begin to acknowledge their own complex and fluctuating emotions. And they begin to consider the baby as someone who already has physical needs, and who will someday have emotional needs as well. The baby is not simply a projection of the mother's fantasies and dreams, but a living, vital, and,in some sense, already separate human being.

"Helping parents to observe their child and learn to "read" their actions and words are at the heart of the reflective model."

The idea of the baby's separate mind can be denied or frightening to some mothers; thus, it cannot be contemplated. Consider, for instance, Ruth, who was having a great deal of difficulty acknowledging the intensity of her own responses to being pregnant. In particular, she was struggling mightily with the idea of her child's separateness. In response to being asked if she could imagine her baby when she was 7 months pregnant: "I imagine that it's going to be very willful because I can't make it move. . . . The baby will be very active and definitely has a mind of its own, you know. But that's a good thing because it's preparing me that this is another human being. It's not me. It's not an extension of me. So that's one of the first things I learned about the baby was like when I saw my stomach move and everything, you know. I can't make the baby do that. And I'm never going to be able to make the baby, and child, and teenager, and adult do what I want them to do." Ruth indeed imagined that her baby would be separate from her; however, this realization was not a comfortable one. She was already angry at the child for his imagined willfulness, layering the child's natural activity in the womb with meaning and with distortion. Ruth's struggle with the idea of separateness makes it easy to imagine the potential for clashes of desire once the baby was born. Indeed, these struggles erupted in full force by the time baby was 3 months old.

For Ruth, her child's separate mind was threatening because it insures conflict; there could be no meeting or sharing of minds. Ruth's reflections on her own feelings regarding her pregnancy and impending motherhood were fragmented and contradictory. Her ambivalence and rage were intense and palpable, and yet she had no capacity to hold such complexity or to regulate and contain her feelings. A reflective approach to working with Ruth would involve helping her hold her own intense feelings in mind, thereby freeing her to imagine the child as both separate but connected. This would allow her to prepare for the arrival of a "good" baby in need of a mother, rather than organize herself around polishing her armor for full battle with the arriving warlord.

Keeping the baby in mind during pregnancy is largely a psychological process, aided, of course, by all the ways mothers-to-be and their families tangibly prepare for the new arrival. Once the baby is born, however, the mother's capacity to hold him in mind is critical to her helping him regulate and maintain basic biological and social rhythms that will form the basis for his evolving sense of self. The baby's establishment of homeostasis, the first achievement of postnatal life, is vitally dependent upon the mother's capacity to first recognize, and then organize and contain his most fundamental experiences: hunger, tiredness, the need for and pleasure in contact, the displeasure in dysregulation and disorganization. In order to do this, she must be able to make meaning of his experience; this will bring vital order and consistency to his earliest awareness of his interior life.

As documented by many of the pieces in this issue, the reasons behind disruptions in the caregiver's capacity to hold the baby in mind during the perinatal period are complex and multifaceted. They include — often in some dire combination — the re-emergence of early childhood disruptions and traumas, the eruption or worsening of biologically based psychiatric disorders (triggered, in part by the hormonal changes in pregnancy), and the devastating effects of disadvantage and poverty upon basic mental and emotional processes and the regulation of stress. The complex and often interrelated nature of such causes requires flexible approaches to treatment and intervention.

The Reflective Model

RF is basic human capacity – it is what allows us to make sense of the people in our world. For some, reflection is too painful and overwhelming, and thus becomes obliterated; for others, whose intentions have never been recognized, they remain foreign and unacknowledged in experience. Over the course of the past year, we have begun developing programs that are aimed at enhancing RF in parents across a range of settings. This effort grew out of our conviction that RF is key to sensitive caregiving, and, thus, is critical to establishing security and confidence in the child. Clinicians' success in helping parents attend to the baby's cues, to follow the baby's lead, and to respond in a contingent fashion *depends* upon helping mothers develop the capacity to make sense of the child's mental states. Without an emotional understanding of the child, parenting skills are of little use, and remain empty recipes that bear little relation to the child's internal experience and needs. While the development of this understanding has often been central to early intervention and infant mental health programs nationwide, recent advances in theory and research make it possible to target reflective capacities quite explicitly. It is our belief, borne out by early assessments of outcomes in our Parents First program, that working explicitly on RF can directly impact both parent and child behavior, and contribute to the diminution of parent-child difficulties.

Key to the reflective model are three interrelated aims:

1. helping the mother to reflect upon the emotional, internal life of her baby, (even before it is born);
2. helping the mother to reflect upon her own internal affective experience of parenting, as early as pregnancy; and
3. helping the mother to understand the dynamics of her own and her baby's affects — as they exist internally and interpersonally — as a means to problem solving and the development of sensitive, responsive caregiving.

The model is beautifully captured by Sally Provence's wonderful directive to parents: "Don't just do something. Stand there and pay attention. Your child is trying to tell you something." Helping parents to observe their child and learn to "read" their actions and words are at the heart of the reflective model.

While this model is inherently psychodynamic, it is not explicitly an interpretive model. We are interested in a mother's capacity to identify her own affective experience, and to recognize and respond to her child's experience, but not, per se, in the *meaning* underlying a particular set of feelings a mother might have. Thus, we would be very concerned, in working with Ruth, for instance, about her capacity to imagine how her need for control might be affecting her capacity to make room for the baby, and – after he is born – to see him through a broader lens, and appreciate the preciousness and pleasure in autonomy. We would be less, interested, however, in *why* this mother has such a need for control; i.e., how her relationship with her own parents might have left her feeling powerless and helpless (which indeed it did). While such understanding might naturally flow from the process of reflecting upon her own and her child's experience, the intervention model directs mother first to deepen her appreciation of her own and her child's experiences, and not upon the *meaning* of her struggle as they pertain to her own history.

The Parents First Program

The first program we developed is called Parents First (Goyette-Ewing et al., 2002). This is a mental health consultation service for parents that has been implemented at day care and preschool programs in the New Haven area. The group intervention curriculum includes various components: handouts for parents, journaling exercises, suggestions for playful activities, and group meetings. The Parents First groups are the central aspect of this intervention. These are organized in 12-week cycles, and have been piloted with middle- and working-class parents of children between 1 and 5 years of age. These groups are organized around a single aim: helping parents consider their children's internal experience as it relates to their behavior. Each group is organized around a reflective activity; for instance, "Try to think of a time when you and your child had very different feelings about something. . . . What were you feeling? What do you think he was feeling?" or "Try to think of a time when your strong feelings had an impact on your child. . . . What were you feeling? What kind of effect did it have on your child?"

The groups are conducted in an atmosphere of contemplation, and the emphasis within each group is rethinking or taking a fresh look at the meaning behind a child's behavior or feeling, rather than upon strategies or specific solutions. We find that the process of the group indeed encourages reflection, and that upon completion of the program, parents spontaneously note that problems (sleep, transition, etc.) have resolved. More important, they seem much more able to make sense of their children: "Now I realize that he really needs time to transition; it's too hard for him otherwise. Everything's fine if I give him the time." Or, "I just find myself much more aware, and, like, I'll stop myself and reflect on what he might be feeling." These preliminary results have been quite encouraging, and suggest to us that RF may be a parenting skill that can – with the help of an experienced, trained clinician – be enhanced within a group setting. We are now preparing a curriculum for mothers and fathers during the pregnancy and perinatal periods.

The Minding the Baby Project

We have also developed a home intervention study with disadvantaged mothers and their babies, again with the reflective model at the core of the intervention. This program – which will begin during the second trimester of pregnancy and continue through the child's second birthday — is aimed at helping the mother "keep the baby in mind" in a variety of ways, physically, emotionally, and

relationally. Mothers will be visited in the home beginning during the second trimester of pregnancy, continuing through the first year of life. We have named this project Minding the Baby (Slade et al., 2002). The model is based upon the flexible implementation of an integrated nursing/mental health model, and will be delivered by a team that includes a clinical social worker with infant mental health training and an advanced practice pediatric nurse who also is trained in early relational development and attachment. One member of the clinical team will form a primary relationship with the mother; as has been demonstrated time and again in home visiting studies, the mother's relationship to the home visitor is of vital importance in predicting outcomes.

This relationship-based team approach ensures that the mother and baby receive the nursing care that Olds and his colleagues have found so critical to early home visiting. At the same time, it allows for specific attention to the attachment and mental health needs of mother and baby, as are central to the attachment interventions pioneered by Fraiberg, Lieberman and Pawl, Heinicke, and Zeanah. We use this combined model because we believe that the capacity to keep in mind multiple aspects of the baby's experience – physical needs, emotional needs, and affiliative needs — is critical to sensitive parenting. Equally central is helping the mother keep herself and her own feelings in mind as she negotiates the complex transition to parenthood and the development of a new, complex, and lifelong relationship.

Central to the training of home visitors, and to the organization of home visits is the implementation of the reflective model: training the home visitors to keep the baby's mental and physical states alive for the mother, and to continuously model reflective awareness in everyday caregiving and nurturing. This approach will bring a coherence and focus to the intervention, and will be essential in helping mothers develop the capacities that are intrinsic to raising healthy, well-adapted children. The women and families we will be working with are struggling with the severe and complex effects of urban poverty and disadvantage. Many of these women have had significant trauma histories, and many continue to be exposed to a range of ongoing traumas. For these women, reflective capacities have been deadened by life's circumstances; it is often too painful to acknowledge emotions that feel unmanageable and terrifying. In order to help women tolerate and regulate their self-experience, there will be an emphasis throughout pregnancy and the perinatal period on using the techniques of mindfulness meditation as an adjunct to enhancing RF. Many of the mothers in our sample are quite defended against their own internal experience, and these skills can be quite helpful in simply helping them hold their own feelings in mind.

The two pilot programs just described mark the beginning of testing out a range of hypotheses regarding the enhancement of maternal reflective capacities in normal and therapeutic settings. These programs reflect our first efforts to translate research and theory on maternal reflectiveness into practice, in hopes of ultimately improving the effectiveness of early intervention for parents and their children.

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POSTPARTUM MOOD CHANGES:

Are Hormones to Blame?

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With a prevalence rate of 10%, postpartum major depression (PPD) is the most common and yet the most frequently undiagnosed complication of pregnancy. Clinicians, patients, and researchers often assume that the hormonal changes associated with pregnancy and the postnatal period are primarily to blame. However, is this commonly held belief fact or fiction? Does science support the notion that withdrawal of the sex hormones estrogen and progesterone triggers PPD or the less serious postpartum blues? What do we know about the recently publicized postpartum psychosis (PPP) that purportedly leads women to act on complex delusional belief systems?

This article discusses the state of present knowledge regarding the role of the hormones in the manifestation of mood changes in the postpartum period. Included in this review is a discussion of the gonadal steroids estradiol and progesterone; the progesterone neurosteroid metabolite allopregnolone (ALLO), the importance of which is increasingly recognized; the stress hormones cortisol and beta-endorphin; and, finally, the metabolically important thyroid hormones.

A working knowledge of the role of these hormones is particularly useful for clinicians who work directly with women in the perinatal period and with others close to them. It also is important that the public better understand the impact that hormonal changes can have on the mood and behavior of women during pregnancy and following birth in order that appropriate support and treatment be made readily available.

at a glance

- Postpartum mood changes range from the "baby blues" to postpartum major depression to postpartum psychosis.
- Pregnancy and the postpartum period are times of extreme shifts in sex hormone levels — notably estrogen — which, in tandem with their effect on brain chemistry, play a significant role in perinatal mood changes.
- Exposure to high levels as well as drastic drops in levels of other hormones and their derivatives – including ALLO, beta-endorphins, and thyroid hormones — further complicate an individual's vulnerability to and the treatment of postpartum mood changes.
- It is important that clinicians, practitioners, and others who care for new mothers understand and be able to educate new mothers, decision makers, and the general public about the nature of and prevalence of postpartum mood changes.

The Spectrum of Postpartum Mood Changes: Postpartum Blues

The postpartum or "baby" blues occur with such frequency – estimated at 26% to 85% depending on the study (O'Hara, 1994) — that this phenomena is thought to be consistent with the normal postpartum adjustment and probably, from an evolutionary perspective, to aid in maternal/infant attachment. Symptoms, usually mild and self-limiting, include low mood, tearfulness, irritability, emotional ups and downs, anxiety, and sleep difficulties (Pitt, 1973). The peak onset for postpartum blues is 4 to 5 days after delivery and symptoms can last from hours to a couple of days. Women who are experiencing significant anxiety or difficulties sleeping — even when the baby is asleep — may benefit from a brief course (several days) of treatment with an anti-anxiety and/or sleep medication. The majority of women do not require medication, however, and will respond to education and reassurance from professionals, as well as additional support from their family, friends, and partners. Although the baby blues them-

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selves are considered a normal aspect of postpartum adjustment, they may be a foreshadowing of depression to come in the ensuing weeks (Hannah et al., 1992).

Postpartum Major Depression

Postpartum depression (PPD) is the term most commonly used to refer to a major depressive episode occurring after delivery. PPD, which occurs in approximately 10% of childbearing women, is associated with a history of previous psychiatric illness, with 20% to 30% of postpartum depressed women having had a prior episode of depression (O'Hara, 1994). Prospective assessments of women with a previous episode of PPD suggest that the relapse rate of PPD is approximately 40% if no preventative treatment is sought (Wisner et al., 2001). Thus, PPD is not only common, but frequently recurrent in women who choose to have children after their first episode of PPD. Although the vast majority of PPD cases respond to treatment with antidepressants and/or psychotherapy, many cases go undetected. PPD episodes can continue into the first postpartum year and have substantial impact on the mother-infant relationship and the child's neurodevelopment (Murray & Cooper, 1996).

Postpartum Psychosis

One to 2 in every 1,000 childbearing women will experience a psychotic episode within the first couple of months after delivery (American Psychiatric Association (APA; 1994). The majority of such episodes have an abrupt onset within the first 4 weeks after childbirth and are characterized by symptoms consistent with mania: increased activity, racing thoughts, insomnia, bizarre or unusual behavior, delusions, and, in the worst cases, suicidal or infanticidal behavior (Brockington, 1981). Postpartum psychosis (PPP) is considered to be a psychiatric emergency, as the woman's insight and judgment are often dramatically impaired and both her and the child's safety are in question (APA, 1994). Women suffering from PPP often have a history of symptoms consistent with bipolar disorder although often a formal diagnosis is lacking. Inpatient hospitalization along with treatment with mood stabilizing and antipsychotic medications are necessary for the vast majority of women with PPP. The course of illness is usually influenced by the woman's diagnosis, previous psychiatric history, pre-pregnancy level of functioning, and adequacy of clinical care and familial support.

The Hormonal Milieu of Pregnancy and the Postpartum Period

At no other time in a woman's reproductive life does she experience such extreme shifts in sex hormone levels as she does during pregnancy and the immediate postnatal period. Over the course of pregnancy, estradiol, the most potent form of estrogen, and progesterone rise to 100 and 10 times, respectively, above their highest menstrual cycle levels. Both plummet to postmenopausal levels within 7 days after delivery (Speroff, Glass, & Kase; 1994). Levels of the adrenal "stress" hormone cortisol increase during pregnancy in response to placental production of corticotrophin releasing hormone (CRH). Blood levels of oxytocin, a hormone known to trigger the onset of maternal behavior in certain mammals (Insel & Young, 2001), and its receptors in the uterus, breast, and brain increase dramatically in the third trimester to prepare for labor, breastfeeding, and maternal caretaking behaviors.

TABLE 1. HORMONES

- Estrogen (estradiol)
- Progesterone
- Allopregnanolone
- Oxytocin
- Prolactin
- Beta-endorphins
- Thyroid hormones
- Adrenal hormones (cortisol)

Prolactin levels increase during pregnancy and fall over the first 3 weeks of the postpartum period in nonlactating women and over several months in lactating women. Beta-endorphins, hormones associated with the body's regulation of pain and its endogenous reward system, increase with the stress of labor and drop shortly thereafter. Each of these hormones appears to have its own specific physiologic and behavioral effects. In addition, they likely work in concert to prepare a woman for the actual physical process of childbirth as well as complex activities associated with child care.

Brain Chemistry and Mood

Enormous fluctuations in the hormonal milieu of pregnancy and the postpartum period undoubtedly impact the brain's neurotransmitter systems to effect changes in brain function and related behavior. Briefly, neurotransmitters are brain chemical that are responsible for communicating information from one neuron (nerve cell) in the brain to another neuron. This process of neuron-to-neuron communication, which can be likened to a lock and key, is referred to as "neurotransmission." When a neuron is stimulated it releases the neurotransmitter (key) which then binds to its specific receptor (lock) on the next neuron and results in the transmission of information from one neuron to the next (neurotransmission). This process occurs rapidly and simultaneously between many types of neurons to coordinate everything from simple body movements to complex social behaviors and intellectual tasks.

"Postpartum major depression is the most common and yet the most frequently undiagnosed complication of pregnancy

Neurotransmitters (see Table 2) and their various receptors have been implicated in the cause of mood disorders. The past decade of research has resulted in a tremendous growth in our knowledge regarding the degree to which abnormalities in each of these neurotransmitter systems contributes to the abnormalities associated with mood and psychotic disorders not associated with childbearing. However, our understanding of their specific contributions to mood and behavior changes in the postpartum period has lagged. Only recently has the notion that perinatal disorders may have a distinct biological cause come into vogue.

TABLE 2: NEUROTRANSMITTERS

- Serotonin
- Dopamine
- Norepinephrine
- Gamma-Aminobutyric Acid (GABA)

The Hormonal/Brain Interplay

The neurohormonal milieu of pregnancy and the postnatal period refers to the complex interaction between hormones and the brain. While researchers and clinicians now generally believe that the neurohormonal milieu is an important trigger for postpartum mood changes, from the baby blues to PPP, the mechanism for their occurrence has not been determined. With this in mind, the following is a review of aspects of the neurohormonal relationship that have the most compelling animal or human data to support their role in perinatal mood changes.

Estrogen in Postpartum Mood Changes

While many hormones undergo enormous fluctuations during pregnancy and the early postpartum period, no hormone has such diverse impact on brain chemistry, structure, and function as the most potent of estrogens, estradiol. Table 3 provides a brief list of the many central nervous system (CNS) effects of estrogen human (McEwen, Alves, Bulloch, & Weiland, 1998; Joffe & Cohen, 1998; Chrousos, Torpy, & Gold, 1998). As one can see, estradiol has pronounced effects on the serotonin system from synthesis of the chemical itself to the sensitivity of its receptors. Similarly, estradiol has significant impact on dopamine that has been found to be important in psychotic disorders, substance abuse disorders, and attention deficit disorder. Estrogen's effects on blood vessels in the brain may contribute to the migraine-type headaches that some women have when estrogen levels drop prior to their menses and in the postpartum period. The cognitive protective effects of estrogen are evident in the decreased risk of Alzheimer's disease in menopausal women on estrogen replacement therapy.

Some of the most compelling data implicating estrogen in the regulation of mood in humans come from two well-controlled studies of estrogen treatment for depression occurring in the perimenopause (a time when menstrual cycles are becoming irregular and less frequent and a woman begins to have symptoms associated with the menopause). In two separate studies conducted by investigators at the National Institute of Mental Health and the Massachusetts General Hospital (MGH) (Schmidt et al., 2000; de Novaes Soares, Almeida, Joffe, & Cohen, 2001), estradiol at normal hormone replacement doses (50 ug/day) was shown to be more effective than placebo in perimenopausal women suffering from clinical depression. However, the data regarding estrogen in the treatment of PPD are less clear. Gregoire and collegues (1994) from the United Kingdom, found that women with PPD who were treated with high doses of estradiol (200 ug/day) were more likely to have remission of symptoms than women receiving placebo. Findings from a recent Finnish study (Ahokas, Kaukoranta, Wahlbeck, & Aito, 2001) support the use of high doses of estradiol in the treatment of PPD. What is left unclear in these studies is whether estrogen is best used alone or in combination with traditional antidepressants

such as serotonin reuptake inhibitors (SSRIs) or tricyclic antidepressants (TCAs). In addition, the amount of estradiol necessary for symptom remission or length of treatment was not addressed. However, these studies point toward the need for carefully designed studies (like those conducted in perimenopausal women) to determine the utility of estrogen replacement therapy in the treatment of PPD.

With respect to PPPs, which are most often affective in nature, sufficient animal and human data exist to suggest that the withdrawal of estradiol at parturition can be a trigger in vulnerable individuals (Kumar & Robson, 1984; Cox, Murray, & Chapman, 1993; and Ahokas, Aito, & Rimon, 2000). It is well known that women with bipolar disorder or a PPP within the previous 2 years are at extremely high risk for a relapse. In addition, women are 20 times more likely to be hospitalized within the first 3 months of delivery for psychosis than during a comparable 3-month period outside the postpartum period (Kumar & Robson,1984). Supporting the role of estrogen as a trigger for severe PPD and PPP, Deborah Sichel and her colleagues (1995) at the MGH found that high doses of estrogen followed by an estrogen taper over the course of the first month postpartum could prevent the high rate of recurrence of PPD and PPP in those women with history of a previous PPD or PPP. Although this study was intriguing, these findings must be confirmed by properly controlled clinical trials, which would not only potentially confirm the findings from Sichel's study, but could provide clinicians with the "permission" to use this rather unconventional strategy to prevent relapse of certain psychiatric disorders during the early postpartum period.

"It is not clear when, how much, how long, and for whom estrogen should be given in the postpartum period."

In addition to the treatment trials discussed above, is there evidence implicating estrogen withdrawal in postpartum mood and psychotic disorders? Animal studies suggest that estrogen inhibits the activity of an important enzyme in the production of the neurotransmitter dopamine. Dramatic increases in estradiol, such as those during pregnancy, may cause a relative reduction in brain dopamine production that would lead to compensatory increases in the number or sensitivity of the receptors to which dopamine binds. Going back to the lock and key analogy, if there is a decrease in the keys available for all the *locks*, the *locks* would either increase in number or become better at fitting the *keys* so that the processes *unlocked* by the *keys* would not be hindered.

In summary, estrogen has pronounced effects on brain neurotransmitters that modulate mood, cognitive function and complex human (McEwen et al., 1998; Joffe & Cohen, 1998). Estrogen withdrawal after prolonged periods of exposure to high levels appears to be a potential trigger for postpartum depression and psychosis via these effects of estrogen on brain chemistry and function. All pregnant women experience dramatic increases in estrogen during pregnancy and rapid withdrawal of estrogen at parturition; however, only those women with biological vulnerabilities experience serious psychiatric disturbances with these normal hormonal changes. While it is clear that hormone replacement with estradiol is effective in treatment of depression occurring during the menopause transition, it is not clear when, how much, how long, and for whom estrogen should be given in the postpartum period.

Table 3
Example of Hormonal Modulation of Brain Function: The Estrogen Story

Estradiol . . .

- increases number of certain types of serotonin receptors;
- enhances serotonin reuptake into nerve terminals;
- modulates the sensitivity of certain types of serotonin receptors;
- decreases synthesis of dopamine; may alter sensitivity of dopamine receptors;
- increases brain blood flow;
- enhances sprouting of nerve dendrites in areas of the brain important for memory;
- increases certain phases of sleep (REM sleep);
- decreases sleep latency (the amount of time required to fall asleep);
- increases turnover of norepinephrine;
- increases subtypes of norepinephrine receptors;
- increases the enzyme for production of GABA; and
- may enhance neuronal activity through effects on glutamate receptors.

Progesterone and Allopregnanolone

Although the hormone progesterone affects the serotonin neurotransmitter system, probably the most important means by which this hormone modulates mood in postpartum women is via its neurosteroid derivative, allopregnanolone (ALLO). To understand the importance of this particular hormone, one should know what is meant by the term neurosteroid. While most hormones produced in the body by the ovaries and/or the adrenal glands cross the blood-brain barrier to have some effect on the brain, the term neurosteroids refers to hormones that also are produced in the brain itself. That the brain can make its own progesterone, estrogen, testosterone (and other androgens), cortisol, and ALLO highlights the brain's contribution to behaviors and physiological processes associated with reproductive function.

Why is the neurosteroid ALLO of particular interest? ALLO has potent enhancing effects on the gamma-aminobutyric acid type A (GABAA) receptor, which is found throughout the brain. The GABA system is the brain's major inhibitory neurotranmitter. Thus, when a chemical that has *pro*-GABA effects is present in a particular area of the brain, neuronal activity in that area is reduced. To refer back to the lock and key analogy, GABA-enhancing hormones or chemicals — such as alcohol, sedatives and tranquilizers, and mood stabilizers/antiepileptic medications — are the keys that insert into the GABAA receptor or *lock*. Putting this type of *key* in the *lock* results in a decrease in neurotransmission or *communication* of a particular type. This is one way that the brain can regulate the activity of various types of neurons (nerves). A seizure is one example of a phenomenon that can occur when an area of the brain doesn't have enough GABA and is overly "excited." Most treatments for seizure disorders enhance GABA function and can be used as mood stabilizers in psychiatric disorders as well.

"For most women, the fact that they are depressed during the postpartum period comes as a shock and surprise."

How Information Might Be Phrased for a Depressed Woman and Her Family

It is likely that several things have contributed to your feeling depressed at this time. One of them most certainly is the dramatic hormonal changes that you have recently experienced. During your pregnancy many of the hormones in your body, such as estrogen and progesterone, dramatically increase. They increase to many times the levels you have experienced during your menstrual cycles. Within the first few days after delivering your baby, these horomones, as well as several others, decreased to very low levels. We know that these hormones have very important roles in reproduction, but they also affect chemicals in the brain that are key modulators of mood and behavior. Through this interaction with brain chemicals, we believe that the hormonal changes you are experiencing help to cause your symptoms (give examples, such as changes in sleeping, eating, energy, thinking, and mood).

While getting more sleep and help with the baby will probably improve your sense of well-being, many women need an antidepressant and/or antianxiety medication to feel better. These medications are used to treat depression and anxiety and they are also quite helpful with post-partum depression. These medications may help you because they increase hormone production in your brain and/or affect the chemical systems that control mood and behavior.

The GABA-enhancing effects of ALLO are very similar to those of antianxiety medications and sedatives (i.e., benzodiazepines, barbiturates) and GABA itself. Animal studies have demonstrated that, like these other GABA-enhancing agents, ALLO has antianxiety and anti-seizure effects. Human studies show that ALLO has potent sedative effects. Both ALLO and GABA may be involved in triggering the mood, cognitive, and behavioral symptoms associated with the menstrual cycle mood disturbance known as premenstrual dysphoric disorder (Epperson et al., in press). Others have shown that individuals with major depression have reduced cerebral spinal fluid (CSF) levels of ALLO compared to healthy controls. Successful treatment with SSRI types of antidepressants results in a normalization of CSF ALLO levels. Thus, ALLO may be involved in mood disorders that occur in both males and females (Griffin, Conrad, & Mellon, 2001).

Our group has preliminary data suggesting that pregnancy and parturition have pronounced effects on GABAergic function. With respect to brain GABA levels, healthy postpartum women who have low blood levels of estrogen and progesterone are different from nonparturient women during the follicular phase of the menstrual cycle (when estrogen and progesterone are at their lowest levels). Thus, the status of these two groups may be the same with respect to actual levels of GABA-modulating hormones; however, their brain GABA levels differ substantially.

To summarize the important findings with respect to progesterone and its neurosteroid metabolite ALLO, both animal and human studies suggest that (through its effects on the GABA system) ALLO may play a role in causing symptoms associated with premenstrual dysphoric disorder and clinical depression (Griffin et al., 2001). Pregnancy is a time of high exposure to ALLO and levels drop within the first few days after delivery. Recent evidence suggests that this dramatic fluctuation may cause mood changes associated with the baby blues and perhaps PPD.

Beta-Endorphins in Postpartum Mood Changes

Investigations of beta-endorphins — hormones associated with the body's regulation of pain and the brain's reward system — have been primarily limited to measures during the first few days after delivery, when many women experience the baby blues. Beta-endorphins, a type of opiate made in the body, have been proposed to have a role in promoting positive maternal-infant interaction. Beta-endorphins rise during the third trimester and labor and drop rapidly after parturition. Beta-endorphins are released in response to stress and pain and appear to have an analgesic (anti-pain) action. The relationship between beta-endorphins and mood is supported by the fact that synthetic or man-made opioids, which are

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similar to beta-endorphins, are known to affect mood, and administration of naloxone, an opiate receptor blocker, has been shown to cause negative mood states.

While there is a striking similarity between the symptoms of the baby blues and those seen during withdrawal from opiate type drugs (e.g. confusion, irritability and mood instability) researchers have found an inconsistent association between postpartum beta-endorphin levels and the baby blues. One group found a greater drop in beta-endorphin levels from delivery to postnatal day 2 in women whose mood deteriorated early in the postpartum period (Smith et al., 1989). In contrast, Taylor and colleagues (1994) found no association between mood and beta-endorphin levels on the third postpartum day. Thus, there is some evidence to suggest that beta-endorphins which increase in response to the pain and stress of delivery, may precipitate some of the symptoms associated with the baby blues but a full-scale investigation would be necessary to fully elucidate this relationship.

"Understanding something of the complexities regarding the interactions of hormones with the classic neurotransmitters, will help dispel the myths of the 'bad mother' and help women place their illness in its proper biological context."

Pituitary and Adrenal Hormones

Studies examining the relationship between thyroid function and postpartum mood have provided some evidence for the role of abnormal thyroid function in PPD. Secondary to changes in the body's immune status during pregnancy, approximately 10% of pregnant women will develop antibodies to their own thyroid gland; the thyroid gland produces hormones that are critical in maintaining the body's metabolic balance. After delivery, roughly 5% of women will develop abnormal thyroid functions and some will go on to have permanent reductions in thyroid function (hypothyroidism). Symptoms of hypothyroidism can overlap with those of depression: fatigue, low mood, weight gain, irritability, and anxiety. Thus, every woman presenting with depressive symptoms during the postpartum period should have her thyroid function checked by measuring the level of various thyroid hormones in her blood.

The British investigator Harris and his colleagues (1989) initially reported no association between having antibodies against one's thyroid and postpartum major depression. In a subsequent study, however, Harris (1999) found that those women with positive thyroid antibody titers with or without abnormal thyroid functions had a higher incidence of any depression diagnosis. Thus, having antibodies to one's thyroid may cause subtle alterations in thyroid function that increase the risk of more subtle changes in mood in the postpartum period.

Dysregulation of the hypothalamic-pituitary relationship with the adrenal gland and the thyroid gland have been demonstrated in many patients during major depressive episodes not related to pregnancy (Chrousos et al., 1998). Given that both of these systems are affected during pregnancy, investigators have attempted to find associations between their dysregulation and PPD. The adrenal glands sit near the kidneys and produce cortisol in response to stimulation by adrenocorticotropin hormone which is produced by the pituitary gland. That up to 80% of women 3 to 5 days after delivery lack the normal response to administration of a substance which should temporarily suppress adrenal production of cortisol suggests that the high levels of adrenocorticotropin hormone and cortisol during pregnancy result in altered sensitivity of this hormone system (Greenwood & Parker, 1984). One study that extended the evaluation of thyroid and adrenal function to the 12th postpartum week found that there were signs of thyroid and possibly adrenal dysfunction in women with a prepregnancy history of mood disorders (Pederson, Stern, Pate, 1993). Again, these data suggest that many women undergo changes in thyroid and adrenal function during pregnancy and that relatively few of these women experience serious depression.

In summary, the hormonal contribution to the onset of postpartum mood changes is likely multifactorial and/or specific to a particular individual's biological vulnerability. While estrogen and progesterone are likely to be the two most widely known hormones, mothers and their significant others need to be made aware that there are many hormones that change dramatically during pregnancy and the early postnatal period. It is important to point out that exposure to high levels of these hormones for a protracted period of time is likely to be as important in precipitating mood changes as is the withdrawal from the hormones at parturition. This will help women to understand that the treatment of postpartum mood changes is not as simple as "adding back" a particular hormone.

Practical Implications

A working knowledge of the role of hormones in postpartum mood changes is crucial for clinicians working with pregnant and postpartum women for several reasons. For most women, the fact that they are depressed during the postpartum period comes as a shock and surprise. They seek answers to such questions as Why now? Why don't I feel like I want to be with my child? Am I a bad mother?

As providers of care to postpartum women, it is very important to be able to educate women regarding the hormonal changes associated with pregnancy and delivery. Understanding something of the complexities regarding the interactions of hormones with the classic neurotransmitters, will help dispel the myths of the "bad mother" and help

women place their illness in its proper biological context. This information should be kept simple and be provided in a sensitive and appropriate fashion.

Society's most recent exposure to PPD has been through media coverage of Andrea Yates' murder of her five children. It is vital for clinicians to be able to educate policy makers and the general public about the prevalence and nature of postpartum mood changes. Specifically, it is imperative that individuals who are called to testify on behalf of women who have committed infanticide during the throws of PPP understand the biological underpinnings of postpartum psychiatric disorders. With state-by-state variations in the interpretation of the "not guilty by reason of insanity" defense, it is important that the biological aspects of these disorders be better understood and shed light on how a woman's insights and judgment can be severely altered by complex delusional systems.

Summary

Postpartum mood changes are not only common, but potentially devastating to a woman, her family and society at large. While there are undoubtedly many contributing factors to the high prevalence of mood changes in the postpartum period, the neurohormonal milieu of pregnancy and parturition provides fertile ground for the surfacing of serious abnormalities in mood, cognitive function, and behavior.

Individuals who work with pregnant and postpartum women must be able to educate women regarding the nature of these hormonal contributions. Through such endeavors, the myths and stigma associated with postpartum depression and psychosis can ultimately be dispelled.

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HARRIS PROGRAMS IN PERINATAL MENTAL HEALTH AT THE YALE CHILD STUDY CENTER

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At the Yale Child Study Center, a portfolio of clinical and research services address how adults make the transition to parenting. Characteristic of all the services in this program is a multidisciplinary focus that brings together the different fields of expertise relevant to the perinatal period. These disciplines include child psychiatry, developmental neuroscience, neurochemistry, and developmental psychology, adult psychiatry, pediatrics and neonatology, genetics, obstetrics, and gynecology. The professionals represented in these fields include basic and social scientists, physicians, nurses, nurse practitioners, nurse midwives, social workers, clinical psychologists, and pediatric nurse practitioners. These programs and services in perinatal mental health occur in the context of the Child Study Center's long-standing early childhood services and research programs that provide a seamless connection between studies and services devoted to this transitional perinatal period and services for toddlers, preschool, and early school-age children and their parents. Three of the service components of this program are discussed here:

1. Parents First;
2. Minding the Baby; and
3. High-Risk Pregnancy and Maternal Anxiety Study.

In addition to the elements of these programs described below, each program also features an ongoing evaluation component to study the effectiveness of the intervention and the components of the intervention process that seem to have the most impact for parents.

Parents First

Parents First is a developmental parenting program designed to increase parental involvement in their child's education and development. Parents First provides information and support to parents — through the child care centers, Head Start, and preschool classrooms, and childbirth classes they use — about the care and education of their infants and young children. The objective of Parents First is to help parents enhance their capacity to support the cognitive, social, and emotional development of their children. We view social and emotional adjustment as central to school readiness; it impacts children's motivation to learn,

their ability to succeed in class, and their ability to have positive relationships with teachers and peers. To this end, Parents First places parent consultants in the settings listed above with the aim of providing a range of resources to the parents of young children. These resources include parent groups, individual consultation with parents, and consultation with early childhood educators. In addition, we are working to increase parental awareness of how to evaluate adequate care for their children and to increase parental involvement in their child care program and ultimately their child's school.

Parent group meetings are the centerpiece of the direct service programming in Parents First. They are organized around a curriculum designed to help parents think about their children's internal experience, and to understand the link between these experiences and behavior. As such, they provide a forum for parents to develop a vision for their family life, discuss their concerns about parenting and their relationship with their infant or child, better understand their children's needs and behavior, and work on creating changes in their family where they feel it is needed. In addition to didactic and problem-solving aspects of the group process, the group's primary purpose is to help parents develop the capacity to reflect upon the nature of their child's emotional life, a skill known to be critical to the child's social, emotional, and cognitive development, and to the development of healthy attachment. The parent groups run for 12 weeks, although the parent consultants' involvement with the center is ongoing. The parent consultants (who are experienced clinicians from a variety of disciplines) are available to consult with parents and teachers individually. In addition, the parent consultant helps parents come together as advocates for their child care program (and/or child care providers).

Minding the Baby

This intensive home-visiting intervention program for mothers and babies takes place in a community health care clinic (the Fair Haven Community Health Care Clinic) in one of New Haven's poorest neighborhoods. Minding the Baby is aimed at helping the mother "mind" her baby in a variety of critical ways, both physical and emotional. The program aims to promote the following:

1. physical and psychological health and development in the child;
2. competent, flexible parenting; and
3. psychological health in mother, child, and in the mother-child relationship during the early months and years of the transition to parenthood.

The intervention brings together attention to the physical health of the baby and mother with attention to the emotional well-being of the dyad. We believe that this kind of integrated model — bridging the primary care and mental health aspects of mother-infant intervention — is critical to providing support for the child's and mother's overall development.

The intervention is modeled on the idea of a "doula" or a pregnancy and childbirth companion. Doulas are nonprofessional "companions" who provide emotional and physical support to mothers through the latter stages of pregnancy, childbirth, and early infancy. The Minding the Baby program expands the notion of doula to include a team of primary care and mental health professionals. This expansion is crucial to matching the complex needs of the high-risk families seen in our community. The program provides intensive home-visiting services for mothers and babies beginning in the third trimester of pregnancy and extending into the child's third year. The program complements the regularly scheduled prenatal group sessions that the women attend at the community health center. After the birth, home visits are continued on a weekly basis, and complement the existing scheduled health visits for the mother and well-baby pediatric visits.

The schedule of visitation and general content of visits form an integrated nursing/mental health model that brings together the two emphases of nursing interventions and mental health interventions in one multidisciplinary, team-based intervention.

High-Risk Pregnancy and Maternal Anxiety Study

While all of the programs described here are multidisciplinary, this third program represents a very close collaboration among three departments—psychiatry, obstetrics, and child psychiatry—and involves physicians, psychologists, nurses, and social workers. Through this collaboration, we are offering expanded mental health intervention services for early depression and anxiety in women who have suffered previous perinatal losses and whose current pregnancies are thus considered high risk. Women who have experienced a previous pregnancy or perinatal loss are understandably highly anxious when they become pregnant again. However, their level of anxiety, even arrested or incomplete mourning, may interfere with their ability psychologically to anticipate and "make room" for their new infant, and also may considerably increase the level of stress during their pregnancy and, thus, the level of stress impacting their fetus.

Despite encouragement and referrals from their obstetrician, many of these women refuse to seek mental health services outside the context of their ongoing obstetric care. Therefore, in this program we offer ongoing mental health services through the ongoing obstetric services. These services involve an intensive 12-week intervention to help women identify as much as possible those situations and thoughts that trigger their most crippling or frightening worries regarding their infant. In this intervention, women are seen individually beginning late in their first trimester or early in their second. They meet weekly with a clinician from our multidisciplinary team.

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EARLY CONNECTIONS:

Mother-Infant Psychotherapy in Support of Perinatal Mental Health

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The transition to motherhood is a period of major life change and adjustment, bringing with it challenges to the new mother's emotional balance and growth. Questions of identity, responsibility, loss, and accommodation are stirred by the move from being an individual to being the mother of a totally dependent infant. Within our society, this transition is set in the context of an idealized view of motherhood as a time of unambivalent joy and selfless surrender. New mothers are often confused by their feelings of sadness, resentment, and anger, leaving them with guilt and shame about being different or "bad." For the 15% of mothers who suffer from a postpartum mood disorder, the experience of new motherhood can be one of paralyzing fear or despair. For some, the suffering may come from previous losses or trauma that have been re-evoked in becoming a mother. Still others may be feeling the overwhelming challenge of a baby who is difficult to soothe or hard to read.

Special thanks to Peggy Kaufman, Director of the Jewish Family and Children's Service Center for Early Relationship Support, for her vision, energy and colleagueship in creating Early Connections.

at a glance

- The Early Connections program trains clinicians in perinatal and infant mental health to help new mothers and babies who have emotional difficulties.
- Individualized, home-based services help mothers to expand their definition of what a good mother is, reduce preoccupation with past loss, and lessen anxiety to make room for the baby in their life.
- Early Connections is one of several programs providing services for new moms within a larger service organization.
- Center staff actively work to connect with area therapists and programs to build a stronger network for advocacy, clinical sharing, and referrals on behalf of women with postpartum mood disorders.

The traditional mental health system has failed these women for several reasons. Many are never referred because obstetricians or pediatricians haven't asked about their feelings and experience. The shame of acknowledging their experience keeps others from sharing even when asked. Some depressed mothers are identified as needing services but the obstacles to getting to a therapist's office when you are a new mother can feel enormous. For some, a referral for medication is helpful but their relationship with their baby may continue to suffer. Additionally, the stigma of a mental illness diagnosis can be an unwelcome burden on a new parent and baby. Far too many new mothers continue to suffer without the help they need and the costs mount, not only for maternal health but also for the well-being of her partner and baby (Milgrom, Martin, & Negri, 1999; Murray & Cooper, 1997)

"When we listen to women who are suffering in the months of early motherhood, we hear their struggles to give voice to the complexity of feelings they are having."

Responding to the Darker Side of Motherhood

The Center for Early Relationship Support at Jewish Family and Children's Service has been in a unique position in looking to address these critical issues, working to meet the mental health needs of new parents and babies with keen awareness of the obstacles to traditional mental health care. Beginning in 1989, the Center's oldest program, Visiting Moms, has trained community volunteer women to visit new mothers in their homes for supportive listening and nurturance. The program has been enormously successful in reaching moms who feel alone and need a caring, consistent visitor — an experienced mom to help them find their way.

For some of the referred mothers, however, a visiting mom was not enough; they were struggling with emotional conflicts that needed clinical intervention. To meet these needs, Early Connections was developed in 1999. Through Early Connections, a therapist provides treatment in the home or office for the mother alone, for the mother and baby together, or for the parenting couple and baby. The model of treatment builds on the work of Fraiberg (1980), Cramer (1995), Lieberman and Pawl (1993), and others working in the area of parent-infant psychotherapy. Clinicians are trained in perinatal and infant mental health and work with parents and babies to help them find their way to healthy emotional communication and attachment.

The mothers seen in Early Connections are experiencing what we call "the darker side of motherhood." They are plagued with feelings of self-doubt, regret, and guilt; they despair of ever feeling better and question being able to mother. Their experience is far from the idealized image of the selfless mother of popular culture or even of the "good-enough mother" of psychoanalysis (Kraemer, 1996).

Their relationships with their babies have evolved in a variety of different ways: They may be overtly compromised or they may be relatively intact. Some mothers use all their energy to provide for their infants and the babies develop well while mom manages her pain internally. Some have withdrawn from their babies, either to protect them from their own sense of being damaging or because of internal preoccupation that prevents their attending to their baby. Others are hypervigilant, tending to be intrusive or unable to tolerate their baby's separateness or autonomous strivings.

When we listen to women who are suffering in the months of early motherhood, we hear their struggles to give voice to the complexity of feelings they are having. They say:

I knew I shouldn't have become a mother.

I didn't feel connected to this baby starting in pregnancy.

I can't put my baby down because I think she'll be lonely."

When I nurse him I start crying because he is getting love that I never got.

I am afraid to touch my baby because I feel I could be poison to her.

I think he is avoiding looking at me because I've disappointed him.

I feel there is love inside but I can't let it out.

The Work of Early Connections

In Early Connections, our approach to working with these women and their families is very individualized. Most are seen in their homes with their babies on a weekly basis, although external factors have led some to request office visits. Partners are included regularly or on occasion, guided by logistics and therapeutic judgment. Using the home setting for therapy brings with it both benefits and challenges. In the post-treatment, follow-up phone contact we have with the mothers, many identify the fact that "we came to them" in the stressful postpartum weeks as key to their sense of the program's impact. But home-based therapy also stimulates complex feelings related to roles, boundaries, and needs, and the setting requires a high level of self-awareness and flexibility from both the therapist and the program.

The program operates on a renewable 12-session model; approximately half of the more than 50 families seen to date were seen for longer than 12 sessions. The majority of referrals come in the first months following a baby's birth, although some are referred prenatally and others are identified at a later point. A small number of referrals have been of adoptive parents who are suffering from a post-adoptive crisis related to connecting to their baby. Our primary referral sources are perinatal social workers, psychiatrists, and increasingly, with focused outreach on our part, pediatricians.

Early Connections benefits from association with the other services of the Center for Early Relationship Support,

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from both the long-term credibility of Visiting Moms in the Boston area and its more recent program in feeding support. Even when mental health issues are a concern, a referring practitioner may find it easier to refer to Visiting Moms or to lactation consultation. The Visiting Moms or feeding support staff may then decide at intake to talk to the referred mother about Early Connections, and many of our program referrals come "in-house" from either of these other services. About half of the families seen by an Early Connections clinician are also being served by a volunteer Visiting Mom. The supervisors from both programs are in frequent contact; although the programs are distinct in many ways, they share the goal of supporting the mother's and baby's emotional health.

Tensions and Themes in the Work

The work of Early Connections centers on listening to the experience of the mother and supporting her search for greater confidence and competence as a parent. This careful listening involves the search for links between past and present and the untangling of these "ghosts in the nursery." The mother's relationship with her baby may be an explicit focus of the sessions, depending on the degree of relationship impairment or risk. Even if the connection and communication of the mother-infant dyad currently seems intact, we know that treatment of early maternal depression can prevent problems later in the child's development. While the clinician may be working in a more individual mode with the mother, the baby is always "brought in" to the conversation as a presence in the sessions and in the mother's mind.

A tension within the infant mental health field centers on the question of whether the primary focus is the parent or the baby. Early intervention programs are grounded in the needs and disabilities of the baby with the mother included in terms of her impact on the baby's well-being. Other approaches to maternal mental health treat the mother's problem (e.g., depression) with medication and/or psychotherapy but with little attention to the effects of the mother's illness (or the cause or the recovery for that matter) on her baby or on their relationship. This tension is one that Early Connections faces in each case: How do we balance the needs of mother and baby, both of which are urgent and intertwined; how do we hold and do justice to both realities, both subjectivities?

"Careful listening involves the search for links between past and present and the untangling of these 'ghosts in the nursery.' "

The themes highlighted here express several ways we hold this tension in our work. These common themes in Early Connections seem to capture critical needs of mothers who are struggling in the perinatal period. They describe our sense of what we are doing that is supportive of emotional healing and growth. While there are certainly many ways to view the process of change we see in Early Connections treatment, these themes seem most relevant to the challenges of the earliest months of motherhood.

Enlarging the Space in Which to Be a Good Enough Mother

Many of the mothers we see feel that they have fallen short of their ideas of what it is to be a good mother. As one mother stated: "I'm not like the other mothers in the new moms' group who say they love to hold and be with their babies." This feeling of difference and the accompanying shame are often directly linked by the new mother to the pictures in her mind (and in our culture) of mothers content in submerging self needs for the baby's needs: Being a good mother means being willing and able to be graciously self-sacrificing of sleep, body, and mind. In this context, her experience of resentment or ambivalence is frightening, an indictment of herself as bad or doomed. We often hear the mothers we see use the word "selfish" to describe themselves; one repeats in each session, "I'm just too selfish to be a good mother."

In our work we have found that expanding the space for these new mothers to feel heard and accepted in their experience can be enormously relieving. Acknowledging the broad expanse of the maternal landscape, giving room for a wide range of what can be normal and acceptable, begins to offer a new sense of possibility for what it means to be a mother. As the darker feelings are shared and understood, the new mother can feel less ashamed and more able to reach out; the isolation that can be doubly crippling for depressed mothers can begin to ebb.

Sara and Jason

Sara was suffering from intense anxiety and shame in being a new mother. She and her partner had suffered through infertility treatments to conceive and she had always thought she wanted to be a mother. When her baby son was born she was overcome with feelings of inadequacy and a sense of burden. In a first visit when Jason was 7 weeks old, she expressed a sense of failure and talked tentatively about the lack of joy and closeness that she had so expected to feel. She worried in fact that she had made a mistake in becoming a mother and that the infertility clinic should not have helped them become pregnant. Over the weeks of meeting, Sara came to feel safe in giving words to her darker feelings. She began to talk about her anger at the baby for taking so much from her and her disappointment in herself for not feeling happy to meet his needs. She described the feeling of dread when she awoke in the morning to hear his cries and couldn't imagine going through the hours ahead.

Sara responded to a sense of being given permission to talk about these troubling thoughts and feelings. She began slowly, but over weeks of meeting, she intensified her expression of all that she had held inside about her doubts, anger, and shame. Her experience of relief was palpable as her

mood in fact began to lighten a bit. Her interactions with Jason began to shift as well. In our early meetings, she showed strain as she tried to respond to Jason's needs while talking about her deep ambivalence towards him. As she shared more of her troubling feelings, she seemed able to engage in more genuine interactions with her son; she gave voice to feelings of wanting to take care of him that could grow alongside the times of feeling burdened and resentful.

Although she had anticipated being a full-time, at-home mom, Sara began to explore the possibility that she could return to work and that this might not be a sign of her failure as a mother. Her process of finding the external balance among work, home, and child care seemed to parallel the internal process of negotiating the inevitable tensions between self and other needs. Tolerating ambivalence and redefining "selfishness" became more possible. She was able to expand her definition of what it was to be a good mother and to feel more accepting of her own mothering experience.

"A tension within the infant mental health field centers on the question of whether the primary focus is the parent or the baby."

Holding the Mother in Mind So That She Can Hold Her Baby

We have come to appreciate the power of the therapeutic holding environment for its intergenerational impact. As we offer an experience of safety, of being remembered, and of being known — maybe differently than the mother knows herself — we make it more possible for the mother to offer these gifts to her baby. We are holding in mind the mother as we are seeing and hearing her as well as the mother we hope and believe she can be.

For some women suffering from postpartum depression, anxiety and irritability cloud their ability to see themselves or their baby clearly. These new mothers feel acutely inadequate, voicing the sense that they don't know what their baby needs or how to respond. The baby may be experienced as very difficult to soothe or as needing constant "entertainment."

When seen by an Early Connections clinician, many of these highly anxious new mothers appear to be parenting quite appropriately, despite their internal experience. The clinician, through words and actions, helps to contain the mother's anxiety and fear. With lessened anxiety, the mother is able to observe herself and her baby more objectively; she can take in the possibility that she can be competent as a mother and that her baby is growing well.

In other families, the situation is more complicated. For these new mothers their emotional struggles so dominate their experience that there is little room for the baby. They feel exhausted and overwhelmed by external demands and internal battles, with little left over for the adjustment to motherhood that involves incorporating another being into one's life and psyche. With a mother in this distress, one goal of our Early Connections work is to help the baby have a place in the mother and in the family. What we have found is that as the mother feels held in mind by us, she begins to find room for her baby.

Deanna and Chrissy

Deanna was a new mother who was consumed with obsessional thoughts about decisions she had made during pregnancy, birth, and the early postpartum weeks. She was convinced she was responsible for "ruining everything" for herself and her baby. For example, she had been told that her milk supply was low and consequently had given up breastfeeding, only to be racked with regret, but paralyzed to either re-choose or move on. Although the content of her ruminations was about herself and her baby, in fact this obsessional thinking kept her from any real experience of her infant daughter, Chrissy. In the first visits, mother held Chrissy in an absent-minded way and responded to her fussing with rote caregiving. She was convinced that "the damage had been done" and that her story of failure as a parent and harm to her baby was written in stone.

The work of Early Connections involved persistent focus on understanding Deanna's experience, listening repeatedly to the story of what had happened, and working slowly to include new questions and possibilities in the story. The therapist had a different view of Deanna and her experiences as a mother than Deanna herself had; slowly Deanna began to feel that her own view of herself and her baby as unalterably damaged had some possibility of modification. Beginning to recognize the real baby further reinforced this sense of new possibility. Chrissy was developing her capacities to communicate and Deanna was able to have moments of taking in who her daughter was and what she could do. In experiencing herself held in mind by her clinician, Deanna could begin to make room for Chrissy in physical and emotional space.

Working Through Losses and Trauma to Reduce Preoccupations

For a significant group of the mothers seen in Early Connections, a history of loss and/or trauma shadows the experience of becoming a mother. These losses may be from their early family history of abandonment, death, or abuse or they may be from perinatal experiences of late miscarriage, stillbirth, or complicated infertility procedures. In many cases, the new mother has been in some previous therapy but the reality of mothering with its attendant responsibility for the life of another brings up these past losses in vivid and disruptive ways.

In our Early Connections work we see the costs of unresolved losses: The preoccupations of new parents with the past keep them from being available to their infant in the

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present. The urgency of the situation is often painfully clear, but we know that grief and trauma work need to be approached with care and that the baby's need for safety must always be in the forefront of our thinking. We are also mindful of the findings from adult attachment research showing that a parental preoccupation is associated with insecure attachment in the child; parental lack of resolution of past trauma puts a child at risk for disorganized attachment (Lyons-Ruth & Jacobvitz, 1999). With these families in particular, we are careful to see our role as helping to build multiple family supports and working to connect the mother with ongoing therapy.

Anne and Ben

When we first met Anne, she was 6 weeks postpartum and had been afraid to be alone with her baby since his birth. Her husband and his family had been staying with her and doing much of the care for baby Ben. Anne felt unable to take care of him by herself because of feeling flooded when he cried. She held him a lot but got anxious when he was awake or fussy. "When he cries, I think he's lonely," she shared, with tears in her eyes. As we met and talked in the following weeks, Anne made connections to her own sense of profound loneliness as a child. She was an only child whose mother (who was ill with postpartum illness) had abandoned her at a young age; her father had made several geographical moves with her, disrupting whatever budding friendships she had made.

"No single program for mothers and babies can be effective in a vacuum."

Having a baby had stirred Anne's "ghosts in the nursery" in ways that left her in a place of anguish and confusion. As Anne slowly began to understand and grieve her own history of loss, she came to recognize that her ideas about Ben's feelings were intertwined with her own. Together we listened carefully to his cry to understand what he was communicating and Anne became able to tolerate Ben's unhappiness for brief periods of time. She felt less in a fog and less afraid of taking care of Ben as she untangled past and present and made sense of her own story. While Anne's work was far from complete in Early Connections, she was able to feel both more connected to Ben and more comfortable with his separateness from her.

Early Connections and Other Services

No single program for mothers and babies can be effective in a vacuum. As part of the Center for Early Relationship Support, Early Connections is embedded in a network of services for new mothers in the greater Boston area. In addition to Visiting Moms, the Center offers drop-in groups for new moms, specialized groups for mothers with postpartum adjustment concerns, feeding and sleep consultations, intergenerational groups for healthy seniors and new mothers, and pregnancy loss and maternal loss groups. In addition to staff meetings within each of these programs, the supervisors and coordinators meet regularly to discuss shared clinical concerns.

Although I don't take up the issue of psychopharmacological intervention in the work described here, I should note that many of the mothers we see have been tremendously helped by medication. Some are determined to avoid medication while still others have tried it and given it up. We support the process of balanced medication decision making with each mother and work collaboratively with psychiatrists who specialize in reproductive psychiatric issues.

Limitations of time, mission, and geography have reinforced our commitment to connect with other providers in the area. The work of Early Connections is not long-term therapy, although we are often a bridge to longer-term individual therapy or couple's therapy. We have recently begun a series of "clinical conversations" with area therapists who have a special interest in perinatal mental health in order to build a stronger network for advocacy, clinical sharing, and referrals on behalf of women with postpartum mood disorders.

Early Connections is a relatively young program, filling a need in the Boston area for home-based treatment for new mothers and babies suffering from perinatal emotional difficulties. Listening to these women, we hear the experience of the darker side of motherhood and see the troubles, and the light, for both mother and baby in this terrain. The themes and cases described here hopefully capture the sense of challenge and hope that we feel as we learn from our new families in this critical endeavor. As we work to explore, acknowledge and balance the claims and needs of each partner, the mother and baby can come to feel their landscape as slightly roomier, and more forgiving.

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Treating Maternal and Postpartum Depression:

The Missing Link in an Early Childhood Mental Health Program

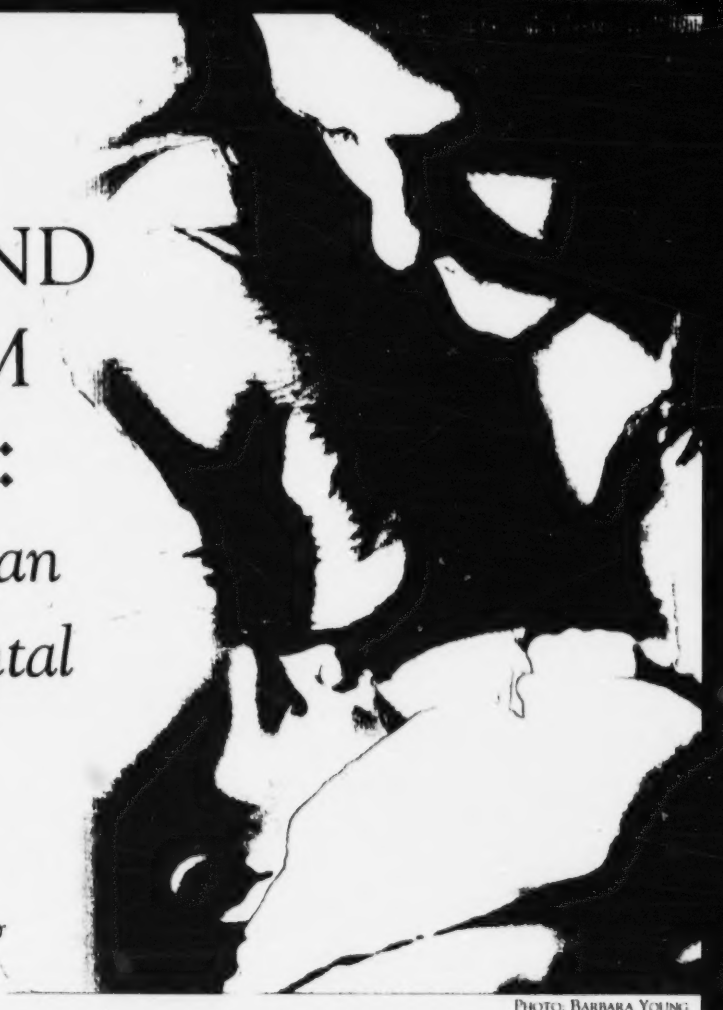

Photo: Barbara Young

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Early childhood mental health programs offer an opportunity to address — with a wide range of services designed to address specific domains of delays and near delays — the unique social, emotional, and developmental issues faced by young children. More challenging, however, is how to best isolate and identify the impact of parental emotional health on a child's growth, and following that, to treat it. The staff at the Marks Family Right from the Start 0-3+ Center, based at the North Shore Child and Family Guidance Center on suburban Long Island, have been working to develop effective protocols to help 3- and 4-year-olds manage separation, learn social skills, or adapt to divorce and loss. This article describes our effort to expand our these services to address the more complicated issues of parental mental health and its impact on the developing child; in particular, we describe our efforts to define and treat maternal depression within the context of ongoing family and child functioning.

The author would like to recognize the staff at the Marks Family Right from the Start 0-3+ Center at the North Shore Child and Family Guidance Center, and the partners in our Maternal Depression Outreach Project: United Way Long Island Success by 6, Postpartum Resource Center of New York, National Association of Mothers' Centers, and the National Parent-Child Home Program.

We see lots of young children who are already out of control, failing at home and at day care, with exasperated parents and worried teachers. We know that parents themselves struggle with many risk factors; the last decade, in particular, has brought new information that compels mental health practitioners to look at the effects of maternal depression on children. As we became more troubled by the endless stream of 3-, 4-, and 5-year-olds who were failing in their development, we looked at the care given by, and to, their parents and knew that we had to help parents understand the connection between their own feel-

at a glance

- An early childhood mental health center recognizes that the perinatal period is a key developmental crisis in family life and develops services for new moms and their families.
- Parents of children already being seen at the Center were invited to participate in parenting classes that also introduced them to other Center services.
- Effective services were developed that creatively and flexibly combined Center resources with other services available in the community.

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ings and behavior, and their child's. We also knew that we had to look earlier and earlier into the family's developmental history in order to understand the role maternal depression played in the trajectory of the child's behavior problems and family functioning.

Making the Connection

In addition to our routine child mental health services, we began a series of groups for children aimed at enhancing social skills and at developing the mechanisms to cope with family upheaval, as well as their own difficult feelings and anxieties. As for parents, we moved them out of the waiting room and into our meeting rooms so we could do some parenting work with them while their children were being seen. We began a 5-session psycho-educational program, Parenting 101, focusing on child development, family dynamics, and communication skills. These groups allowed families to participate in an educational process that would serve the secondary purpose of introducing them to our parent outreach efforts. These groups also provided us with an opportunity to do an extended assessment and think about triaging the families into more intensive treatment. One of our first series of groups was geared toward the parents of preschoolers who were seen as oppositional, aggressive, and without significant development delays. We quickly learned that what the children had most in common were parents who felt out of control.

"Our program and others need to pay careful attention to families when they experience the most normal of developmental crises, namely having a child."

The Glass Family

Mrs. Glass was a bright, clever woman in her mid-30s who came to the group with her husband. She clearly found the leader's suggestions and input mildly amusing and irrelevant. She agreed to try what the leader advised in spite of her perception that her 3-year-old son was "wild and out of control," feeling supported in her assumptions by the school's concerns and observations. She was sure that her infant son would follow in his brother's footsteps. In the second meeting, it was clear that even her husband's soothing presence could not soften her building frustration with her son. She joked that perhaps she was not cut out for motherhood and certainly she didn't think this was how it was going to be. She revealed that her initial intake worker had suggested that "the parents might need help," not her son. At the third meeting she spoke sharply, no longer hiding behind humor and with clenched fists and jaw stated, "this is not working." A few words of support after the group gave Mrs. Glass the opening she needed. She tearfully confided that she was feeling awful, and agreed to a crisis session the next morning. A brief interview revealed a long list of risk factors: a recent move to a new neighborhood; a previous history of an anxiety disorder; an acknowledged history of postpartum depression following both deliveries; and a course of medication designed to address the explosive behavior she displayed with her children but which was ineffective. We talked about her irritability and frustration, and when it was suggested that maybe her " post partum blues" had not gone away, she seemed surprised that they could last for months. When we suggested that her son's behavior was probably both a cause and byproduct of her emotional exhaustion, she eagerly agreed to treatment. A new psychiatric evaluation plus 3 weeks of twice-weekly crisis sessions crystallized for her how just how badly she had been feeling. She was ashamed of her parenting behavior and was relieved to find that there might be a solution. A new medication and weekly therapy sessions made a profound difference in her functioning and affect. Her son was seen only once at initial intake. While his behavior did not improve quickly, her responses to him changed dramatically, and the family problem-solving and communication style changed immediately. At 1-year follow up, there had been consistent improvement in her child's behavior and continued stability of her own mood.

A Father's Call: The Frank Family

A father called, worrying that his wife was very depressed. They had two sons: an infant and a preschooler, and his older son's teacher had been complaining about the child's behavior. He was not sure if the problem was with his wife or his son, but he felt something needed to be done. A phone call from an anxious father is not a common occurrence at our center, and he sounded genuinely alarmed. This was a full 2 years prior to the massive media attention to the dangers of maternal depression, but this father was guided by his instincts. His wife had agreed to come in with him and an appointment was set up for later that week.

Mrs. Frank came in looking sullen, clearly feeling dragged in by her husband, with the finger pointed at her for the difficulties in the family. She described their preschool son as "a space cadet" with "poor social skills," "making poor eye contact" and "being weird." Much of the first session was spent talking about how difficult he was; the conflict between mother and son was a constant source of tension in the family. Mrs. Frank made it clear that she had been in therapy once before and had found it to be a terrible experience.

Nevertheless, she agreed to come in for an individual session, where she revealed that she had been somewhat depressed when her older son was born, having just moved to a new community, and gone back to work fairly quickly. She worked until her older son was nearly 3 and she was pregnant with her second child. When her second son, now 9 months old, was born she had a "manic" episode in the hospital, and was given a sedative by her obstetrician and then placed on an antidepressant. She never followed up with psychiatric care or mental health treatment and — after about 3 months — took herself off the medication. Now, several months later, she was

clearly distressed, irritable, tense, and overwhelmed. The situation was vastly complicated by the fact that her infant had suffered cerebral hemorrhages at birth, causing mild paralysis. She had been the one to identify it and point it out to her pediatrician. Her days were defined by the constant early intervention therapy services for her baby and fighting with her older son. Her nights were spent arguing with her husband.

A parent-child session conducted after her individual session confirmed that in addition to disrupted mother-son communication, there were some atypical features in her older son's development. An extended evaluation and school observations were offered and agreed to, with Mrs. Frank showing her first glimmer of relief that someone might be on her side. After several meetings with both parents and two school observations, Mrs. Frank began to forge a relationship with the therapist, as she began to see this worker taking on the role of family advocate with the school. We cautiously added occasional family play sessions to some individual meetings. Mrs. Frank was surprisingly eager to sit on the floor and play with her boys, perhaps reflecting how much she wanted her relationship with them to improve. At one meeting with her older son, Mrs. Frank started to cry, saying she had no idea her son could play so well.

It was only after concrete steps were taken to address and redefine the worrisome issues of both her sons that attention could finally be paid to her undertreated and persistent postpartum depression. It was several months before she would consider a psychiatric evaluation in order to begin antidepressant medication. When she did, the improvement was dramatic. A combination of family interventions, individual supportive counseling, and strategic use of dyadic sessions with mother and son created the opportunity for Mrs. Frank to see that things could improve. It was only when she stopped feeling that her failures were the cause of the family failure that she could accept the help she needed. The absence of psychosis and the presence of family supports were crucial. The family moved again, but in this case the move was beneficial; while her older son's behavior was immature and idiosyncratic, a move to a new community and new school offered him a better fit with his environment. Her younger son continued with early intervention services, and Mrs. Frank sought mental health services in her new community. A 6-month phone follow-up indicated continued success in spite of the financial and emotional stress of the move. Mrs. Frank's son was seen in conjoint or family sessions only 6 times.

It is important to note that although concerns about a preschooler had brought both the Glass and Frank families into treatment, there was actually little direct intervention with either child. Instead, the work revealed that both mothers were suffering from depression, exacerbated by the birth of a second child. In both instances, complex and multimodal approaches to the mothers' depression and to the resolution of postpartum issues were at the heart of continued improvement in child, parental, and family functioning.

Getting in Even Earlier

At the Right from the Start Center we typically see children between 2 and 6 years of age, but these clinical experiences made us wonder whether we needed to intervene when the children were even younger. Parents of newborns, infants, and toddlers were not coming for help, and as long as the problem had to be defined by an older child's behavior, we were worried that families would continue to come for help already entrenched in histories of failure. We knew that we had to look at the perinatal period as a key developmental crisis in family life and that our early childhood mental health services were not being used as a resource for new moms and their families. When a local foundation agreed to support a collaborative maternal depression outreach project, we knew we could start to reach out to a new population. The vignettes below offer a look at the kinds of issues that began to confront us almost immediately.

"We quickly learned that what the children had most in common were parents who felt out of control."

Myrna

One of our first calls was from a mother of a 4-week-old, referred by a program partner, the Postpartum Resource Center of New York. Myrna called saying she would like to give her baby up for adoption. During the 4 weeks since the child's birth, she had not held or cared for the baby. Instead, her mother-in-law had taken over, and — the mother stated – might even agree to take the child. Myrna's own mother couldn't understand why she was behaving this way and was quite critical of the situation. Myrna was an educated professional, who presented rationally in all ways, except in discussing her baby. A meeting for both parents was arranged after the initial session, as was a psychiatric evaluation. Myrna attributed her depression to this unwanted pregnancy and so agreed with our recommendation.

The family has only been seen six times since this initial evaluation, and progress has been very mixed. On the one hand, the family and the therapist have identified some key issues in the family, including the alcohol use that has been built into the fabric of the marriage. Indeed, medication had to be discontinued because of excessive alcohol use. Myrna is also quite ambivalent about therapy. Nevertheless, she seems to appreciate her therapist, and has brought her baby in to meet her therapist. She appears to enjoy learning about her baby's development, and sharing the small details of daily life as a mother. Although she is not sure she really needs help, Myrna has agreed to join a new therapeutic "Mommy and Me" group. There are still serious issues in this family, but the child is increasingly safe. The mother has begun to like this baby, and take care of her. With tiny steps, our anxious staff is watching Myrna turn slowly to her child.

Diana

Another early call was from a woman who sounded quite agitated and described herself as having a postpartum depression. She had previously been in treatment and on medication for depression, but felt the problem was related to postpartum adjustment, even though the baby was adopted. She was seen within 24 hours of her call. At the initial assessment, this mother described a history of depression and pregnancy loss, a stillborn child whose birthday coincided with arrival of this new adopted child. As hard as she and her husband had worked to adopt this child, she now wanted to return the baby. She knew that this would destroy her family, and — fearing her husband would leave her if she did return the baby — she had called for help. A psychiatric appointment was set up with her former psychiatrist, who confirmed that she was indeed depressed; she began medication within days. In addition, a referral was made to a post-adoption support group, where a peer group validated many of this woman's feelings. She has continued in individual therapy, her success measured in her finally sending out birth announcements. While not yet "falling in love" with this baby, she is getting to know him, and that is a start.

"Complex and multimodal approaches to the resolution of postpartum issues were at the heart of continued improvement in child, parental, and family functioning."

Martha

A father calls late one afternoon, telling the intake department that he is afraid his wife will do "what that lady in Texas did"; the family is seen the next morning. With four children under the age of 4, two with developmental and medical complications, Martha comes in grateful that her husband called. While she believes that she would never harm her children, she says sadly that she can't stand being with them. She describes being angry and irritable, having no patience for her children, and unable to manage the work of taking care of them. She sees her children as being demanding and difficult. Initial conversation reveals that several years of fertility procedures were followed by three successful pregnancies, including one multiple birth. A history of early parental loss and abuse helped contribute to her stoicism and cynicism. She wanted to feel better and was embarrassed at how poorly she was functioning.

Several months of therapy, and multiple trials on medications, have brought only modest relief to an intractable depression. She has managed to become an effective advocate for all her children, making her successful in accessing needed services and developing relationships with myriad medical professionals. Despite feeling guilty about it, she has accepted respite care. She has also come to believe that her children are not deliberately being difficult and is trying to develop realistic expectations for her own and her children's behavior. Her husband has joined her in sessions so he can develop an understanding of her feelings and learn about the effects of depression. She says that although she is crying more now, she is also laughing more. And she is beginning to believe that she will get better.

Valerie

Valerie called saying a maternity nurse she knew told her about us. She had a 9-day-old and was worried that she is having "bad thoughts." She was afraid to bathe the baby, and was experiencing panic attacks. She and her husband were seen later that same day, two very young and scared looking parents. The mother had a history of panic attacks, but her family was extremely supportive, recognizing the seriousness of her experience. She presented a history that included many life crises and loss. An immediate psychiatric consult doubled the dosage of medication prescribed by her obstetrician, and she and her husband began coming to family sessions with the new baby.

These vignettes capture our experience in reaching out to new mothers and their families. Our staff was not quite prepared for the intensity and crisis nature of the calls and has moved quickly to garner staff and community resources to build an effective safety net of services. We wonder how many women have been suffering, quietly and dangerously, and are working to reach more of them. And we are coming to understand the need for complex and flexible approaches to treating early maternal depression.

Next Steps

In the 2 years since our center opened, our staff and program have gone through our own developmental crises. Our goal was to provide the best services possible to the children in our community but to get there, we have had to push ourselves to challenge some traditional ways of thinking and working. Our reflexive response, to take of the child by serving the child directly, is not always the most helpful, or clinically sound, approach. And if we believe that taking care and enhancing the capacity of parents is a guiding imperative of early childhood mental health services, then our program and others need to pay careful attention to families when they experience the most normal of developmental crises, namely having a child. We struggle with clinical and administrative questions daily but we believe that creating strong families is not rhetoric, but essential for the growth of young children. Early childhood mental health practitioners have a particular and essential role in helping children and their families. We are compelled daily to incorporate new research into our work, to shape our programs and our skills to the needs of the families, and to do so compassionately. For us, recognizing the impact of undertreated, undiagnosed, maternal and postpartum depression has allowed us to implement the real mission of our program: to give children the best environments possible, right from the start.

MATERNAL MENTAL HEALTH:

Early Identification in a Hospital-Based Multidisciplinary Setting

PHOTO: MARILYN NOLT

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Maternal mental health is everyone's concern. Identification efforts must be broadened to facilitate the early detection of emotional suffering in the perinatal patient by *all* disciplines involved in her care This article aims to make a case for demystifying psychological language, and for attaching human-scale terminology to the events of pregnancy and early motherhood. The objective is to develop a team approach to early detection of maternal mental health with a view toward prevention of long-lasting unhappiness — unhappiness which can compromise not only the developmental thrust into motherhood but may compromise, as well, maternal fascination with her infant . . . the baby will suffer, too.

Hospital maternity patients are seen in multiple settings: in the outpatient obstetric clinic; as antepartum inpatients when their pregnancies are threatened; at the time of labor and delivery; when their infants are admitted to the normal newborn nursery or to the neonatal intensive care unit; in ambulatory surgery when the baby has died in utero; or in the genetic counselor's office when parents may be told the devastating news of an anomaly incompatible with life; and soon after birth in the pediatrician's office. In all these places and in routine follow-up care in the weeks and months beyond, patients are seen by an enormous array of professionals: perinatologists, neonatologists, nurses, genetic counselors, pediatricians, obstetricians/gynecologists, and, at Evanston Hospital, by the multidisciplinary team of the Perinatal Family Support Center. The question is how do we use this remarkable array of caring and talented people to shelter families from the often devastating effects of maternal depression, grief, anxiety, preoccupation, and more?

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at a glance

- Effective early detection of maternal mental health problems must involve all of the many professionals across the multiple settings who provide services for women during the perinatal period.
- Identification cannot be limited to diagnosis through the DSM, which neither encompasses the full spectrum of moods nor is useful to professionals outside of the psychological and psychiatric fields.
- All professionals who come in contact with women during their perinatal period be mindful of four key components to assessing maternal mood.

Obstacles to Identification

To begin, we have to loosen the singular focus on the Diagnostic and Statistical Manual of the American Psychiatric Association (2000). While it is a highly regarded tool for a universal approach to assessing psychiatric symptoms, the manual has some outstanding limitations. For example, the word "perinatal" does not appear once as a specifier for diagnosis; postpartum depression is discussed in two short paragraphs under major depression. Two of the most important limitations are these: 1) it focuses on psychopathology rather than the full spectrum of moods (not always pathological) that the perinatal patient may experience, and, 2) most importantly, its use is reserved for highly trained psychodiagnosticians.

"The first and most critical question to ask the perinatal patient is 'How are your spirits?'"

With regard to screening instruments, even the most commonly used tools for measuring postpartum mood focus on pathology rather than the full spectrum of moods that the perinatal patient may experience. Widely used scales do not help us understand how profound joy can co-occur with tears and how rapidly these two states can alternate (Miller & Rukstalis, 1999). Marked mood lability in the absence of chronic dysphoria is called the "blues." But even this designation is misleading. A study measuring happiness, depression, crying, and anxiety in a postpartum population, found a sharp increase in tears and lability 5 days after birth. However, as reported b Kendall, Mackenzie and West (as cited in Miller, 1999), the highest rating was on the happiness scale. Laura Miller says we ought to call the "blues" postpartum reactivity (1999).

The Pathway to Identification

First, we must enter the reality of the perinatal patient. Which assessment components reflect what is really happening in the world of a pregnant or parenting woman? Second, how do we make these components accessible and usable to the members of nonpsychiatric community in a way that empowers them to ask questions without fearing that they won't know what to do with what they hear in response?

Assessment components

A simple question. The first and most critical question to ask the perinatal patient is "How are your spirits?" In hundreds of interviews I have not met a woman (English speaking or not) who does not understand what this means. The question may elicit sudden tears, or a shrug with, "Things could be better," or a "Pretty good." Practitioners need to be reassured that healing begins with this simple question. Apprehension aside, follow the patient's cues, "Why the tears?" "How could things be better?" or "Just pretty good?" In the face of a pale, weeping patient, who is having trouble eating or sleeping, have the courage to ask "Do you ever think of killing yourself? Have you made a plan?"

Intergenerational issues. In one way or another, the pregnant or parenting woman is responding to or initiating interaction with her unborn or born baby or babies. Maternal state is intimately linked to her perception of fetal or infant well-being. While pregnant, activity and movement may reassure and calm or be a source of fear. Likewise, lack of activity can lead to heightened anxiety or panic. Prenatal diagnosis of a fetal anomaly can contribute to sadness, depression, and anger and despair; fear has many faces. A normal ultrasound can enhance feelings of well-being and pride. For some teenage mothers-to-be, the relationship to the fetus can be fraught with conflict and be a lightening rod for the teen's ambivalence about the pregnancy.

Psychosocial assessment in pregnancy and in the postpartum period, therefore, requires a dynamic approach, a movable template: The medical status of the baby or fetus must be known to the health care practitioner and linked to the patient's perception of that status.

The concept of infant temperament is fraught with complexity, but must also be considered in the assessment of maternal mood. Difficult infant temperament may effect different mothers in different ways. A mother with a strong sense of self-efficacy may view her temperamentally difficult baby as feisty, vigorous, and full of life. A mother with low self-efficacy might view her baby as noisy, tiresome, and difficult (Teito & Gelfand, 1997). The idea is that a really challenging baby can distress the most emotionally sound mother, and push an already shaky one over the edge.

In summary, the patient's perception of fetal/infant status must be assessed and then all this related to maternal mood through observation and report. Thus, in addition to "How are your spirits?" another question to be asked is "What has your baby been telling you about him/herself?"

Case Summary

Enter a hospital room on a high-risk maternity floor. An inpatient with a complete placenta previa, with multiple bleeding episodes, nearing term, said: "This baby is literally killing me; the stronger she gets, the more I bleed; I hate her." Here the fetus is perceived as an agent of harm. The patient, over several weeks of inpatient bedrest, presented variously as angry (alienating more than one nurse, critical of her physicians), depressed, lively, rejecting and then affectionate toward her unborn baby, and desperate that this infant be born alive and well. She was open to daily support services; her husband was greatly supportive caring for their three children at

their home nearly 1? hours away from the hospital. Could she or should she be diagnosed as a borderline personality disorder? I never thought so. Within days of delivering a healthy baby, the patient's mood state was well-regulated and remained so, as assessed by phone follow-up over a 12-month period. The *recovery arc* during the perinatal peroid requires careful attention as a component of resilience and stability. You've seen that a patient, who looks and acts like she has a borderline personality disorder when she's terrified for her own life and that of her fetus, can be in a near normal state at the time of birth.

This case summary highlights the complexity of understanding perinatal patients. Although we can not rush to judgment in terms of a psychiatric disorder, we can take action. This patient was resource seeking, she had good marital supports, and she made good use of weekly supportive visits during which she was encouraged to speak the unspeakable, that she hated her baby.

From the case summary shows how maternal representations of the fetus or baby can be a road to an understanding of the mothers feeling state. Just asking the question can be an intervention and can open a range of corrective and healing emotions (Cardone & Gilkerson, 1990).

Marital, Partner, and Paternal Supports

The well-being of the perinatal patient is more nested in the context of her human supports than an any other time of her life. Assessment during this period requires a broadened scope: The spotlight must be widened as we attempt to understand emotional status. It is imperative that we shake loose from the notion that mood state is a condition residing solely in the mother and it is she who must be fixed, when, in fact, we have compelling evidence for fetus, infant, and partner variables that are contributory.

Aan impressive array of evidence shows that poor spousal support contributes significantly to poor maternal mood state. An equally large body of evidence demonstrates that strong spousal or partner support is one of the most important protective factors against the impact of depression and anxiety. Hagen (1999) discusses postpartum depression within the context of evolutionary theory. He asserts that marked thoughts of death, weight loss, diminished ability to think or concentrate, in other words, depression, is one way to negotiate higher levels of marital support. Mother, in effect, threatens to defect from the childbearing effort until she obtains the resources she needs and can guarantee that will to reproduce again. Thus, another critical question to ask of the perinatal patient is "How has your (husband, partner, the baby's father) been handling all this?"

"So many of us are involved at so many critical junctures of patient care that we are in pivotal positions to provide multiple layers of safety nets."

Key Components to Multidisciplinary Assessment of Maternal Mood

In summary, there are four key components that anyone who comes in contact with the perinatal patient should keep in mind. Each component is listed in Table 1, along with a suggested script that can be used by all disciplines.

The Perinatal Team as a Protective Force

In a research and teaching hospital, professionals from multiple disciplines routinely come in extended contact with perinatal patients: genetic counselors, developmental and clinical psychologists, early childhood educators, physicians, nurses, psychiatrists, social workers, chaplains, etc. We must begin to codify a user friendly, human-scale method of assessing the mood state of our patients.

As we attempt to prevent medical complications and to shelter our patients from the consequences of symptom neglect, we must also shelter our patients from the suffering that comes from neglecting states of maternal anxiety, sadness, preoccupation, and suboptimal relationships. So many of us are involved at so many critical junctures of patient care that we are in pivotal positions to provide multiple layers of safety nets. Just as we attempt to identify the presence of

Table 1.
Key Components to Multidisciplinary Assessment of Maternal Mood

Key Components:	How to Ask:
Maternal mood state	"How are your spirits ?"
Perception of fetus or baby	"What has your baby been telling you about himself (or herself)?"
Marital or partner supports	"How has (your husband, your partner, the baby's father) been handling all this?"
Next steps	"You're a great reporter. Things sound tough; let us help you find someone to talk to."

PHOTO: BARBARA YOUNG

domestic violence by saying, in a routine patient care visit, "Does anyone at home hurt you?" we also can ask, "How are your spirits." The obstetrician/gynecologist may be the first one up to ask this, and the question may only begin to circle the patient's consciousness. But hearing the same question from the ultrasonographer, nurses, pediatrician, and support staff will emphasize to her that her "spirits" are a critically important part of her well-being.

Health care providers need to trust their intuitive skills and make a humane judgment. A patient who seems overwhelmed, isolated, and barely engaged with her infant needs a referral to a mental health practitioner.

A Suggested Guide to Care

In your setting make certain that:

1. You have an up-to-date list of local mental health practitioners specializing in women and family issues; making special note of practitioners who have access to interpretive services; and
2. you have an equally updated list of community agencies and clearinghouses that provide care on a sliding scale, again, making special note of those that have access to interpretive services.

The next steps

If a referral is necessary, here are two things that you can do within your own structure:

- Guide the patient to call her insurance company for a specific mental health provider.
- Or, invite her to review your list of practitioners, select a few, and find out which of these is covered by her insurance.
- In situations where you doubt that mother can care for herself or her infant, escort her to the hospital emergency room for an urgent psychiatric consultation.

Gaps in resources. Examine your setting for gaps in resources. Expect the best! Are there social support services in your setting with specialized training related to the perinatal patient and infant development? At Evanston Northwestern Healthcare, Evanston Hospital, the multidisciplinary social service team of the Perinatal Family Support Center works closely with physicians and nurses to provide linguistically appropriate care. Some of the services provided include: individual and group antepartum assessment and support; new mother's and higher order multiples groups; a "warmline" where phone assessment, support, and referral are available; and group and individual services for patients who have suffered perinatal loss.

Effect on the Team

Without question, engaging patients in these questions and hearing their answers is enormously evocative for health care providers. Interactions with our patients and watching their struggles to relate to their fetuses and babies draws us into our own histories of attachments, losses, resilience, recovery, and capacity to just keep on going. The next step in this process is to learn how to support each other in this critical effort.

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THE FIRST YEAR PROGRAM:
Developing the Earliest Relationship

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[T]hey listen really well and they get to know you personally . . . and your child personally . . . and they take a very special interest in you and your child.

The First Year Program, a collaborative effort of two public and two private agencies, is committed to promoting the healthy development of children from the prenatal period through the first year by facilitating responsive parent-child relationships and creating a supportive environment for families. The center-based staff includes a public school teacher with dual licensure in early childhood and parent education, a mental health therapist (LICSW), a licensed school social worker, and a paraprofessional public school educational assistant. Off-site team members include a community program specialist (MSW), a professional community health educator, a registered public health nurse, and volunteer paraprofessional mentors. Professional support team members include a grants manager, a program manager, an outreach coordinator, and a trainer/supervisor for volunteer mentors.

A variety of program components enable staff to address the developmental and mental health issues unique to parents with limited financial and life resources in the third trimester of pregnancy and throughout the first year of the infant's life. Families are referred through a network of community service providers that includes St. Louis County Public Health, Lutheran Social Service of Minnesota, St. Louis County Social Services, the Duluth Area Family Services Collaborative, and area physicians. After an intake procedure, families immediately begin participating in the center-based components of the program, which include weekly concurrent parent education/early childhood education sessions and a mental health support group. Off-site components include weekly home visits and respite child care, which families access as they become more familiar with program staff.

Program components are offered at different times and in different locations. However, staff strive to provide consistent support and information throughout all aspects of service delivery. In the center-based parent education/early childhood session, parents are introduced to child development information that, in turn, is illustrated in session by their own babies. For example, when a baby used the pincer grasp, the teacher pointed it out and explained its developmental significance. The proud mother exclaimed, " I didn't know he could do that! I can't wait to go home and show my mom!" Parents are better able to visualize and understand infant behaviors when the babies are "part of the curriculum" and spontaneous events provide perfect teachable moments. Topics include age-appropriate behavior, reading baby's cues, separation, calming a fussy baby (and yourself as a parent),

The authors acknowledge contributions to this article from the following Collaborative staff members: Ellie Davis, Phyllis Cook, Mary Jo Gunderson, Jessica Sorenson, Gloria Phillips, Jerry Challman, and Joan Gardner-Goodno.

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infant massage, and engaging baby in reciprocal play exchanges. Techniques to address these topics include "speaking for the baby"; normalizing of infant behaviors to calm parents' fears; individualized coaching to move from theoretical ideas to practical skills; and direct teaching of information, particularly on the development of attachment. Additionally, center-based programming encourages dialogue between and among parents and can help to relieve the isolation that many parents of a new infant feel.

[T]he program is a lifesaver because you learn about what the other parents go through with their children . . . and it's, like, the same thing that you're going through . . . so you guys have a lot in common.

In the center-based mental health support group, the on-site therapist focuses her discussions on helping parents recognize how their children's growth impacts their own emotional well-being and how that emotional well-being impacts their responsiveness to their children. Although a formal mental health diagnosis is not needed to enter the program, participants share some "at-risk" or mental health concerns. Practical strategies for solving problems, reducing stress, managing anger and dealing with depression, panic, or anxiety are recurring topics. Attachment-related topics such as watching and responding sensitively to baby's cues and learning and adapting to baby's pace carry over from the parent education/early childhood session. The therapist refers parents to physicians if medication for anxiety or depression is indicated. If more in-depth monitoring is needed, the parent is referred to a psychiatrist. If individual therapy is requested by the parent, the First Year program therapist makes the referral. Respite child care is encouraged and arranged by staff to assist mothers who are feeling highly stressed, depressed, or anxious.

Off-site, the home visitor (the public health nurse, mentor, or early childhood teacher/parent educator) individualizes the center-based information and partners one-on-one with the parent in the parent's own environment. The type of home visitor is determined by the referral source and individual needs identified by the family. Home visiting is viewed as a process involving the unfolding of two relationships: the relationship between the parent and the child, and the relationship between the parent and the home visitor. Common strategies for building these relationships are taught and used by all home visitors. They include empathic listening to establish rapport, observations of the dyad followed by descriptive affirmation, and reframing of child behaviors to assist parents in their interpretations.

It's awesome to have somebody that understands and somebody that lets you finish your complete story before they interrupt you in giving their three cents. . . . Somebody that remembers what you said and checks up on you and says "How's this going?" and "How's that going?" . . . oh, that's great!

Ongoing communication among all staff unifies the off-site and center-based elements of the program. Weekly staff conversations inform the record-keeping staff member when parents have earned 4 hours of free child care through their home visit and center participation. The child care is arranged through the First Year program staff and provided in licensed day care homes.

Sharing a mutual philosophy anchored in relationship-based practice, staff support the growth of the parent-child bond through integrated strategies that deliver consistent messages. The interdisciplinary team recognizes that each agency brings a specific set of skills and professional perspectives, but that the true strength of the team is the melding of their expertise. Trust and respect among team members are hallmarks of the process that facilitates a seamless and fluid service delivery for families. Longstanding professional relationships and a common concern to fill an identified service gap came together 4 years ago to create the initial collaborative vision for the First Year program.

Based on exit interview data, participating parents reported increased feelings of social support and connection to others, increased knowledge of parenting strategies, and increased knowledge of child development. Exit interviews also illustrated that program services helped alleviate family stress through the provision of temporary child care, one-on-one support and encouragement from staff, and access to a supportive social network of other mothers in similar life circumstances. Staff members use this feedback data to fine-tune the program, plan for the future and assess their effectiveness in providing intensive family support.

In response to the question "What influence has this program had on your life?" one former participant answered:

Tremendous. . . . I don't think I would be the parent I am today and I don't think I would be nearly as together. I don't know how I would have gotten through the last year without it. It has been fabulous all the way around.

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PHOTO: MARILYN NOLT

INFANT MENTAL HEALTH IN A HEALTHY FAMILIES HOME VISITING PROGRAM

CAROL BAXTER
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JANICE CONNELLY
Provena Behavioral Health
Champaign, Illinois

Provena Behavioral Health (PBH) is a comprehensive behavioral health agency that has provided intensive, voluntary home visiting through its Healthy Families program since 1997. PBH's Healthy Families program is based on the Healthy Families America model and targets first-time, at-risk adult parents. At-risk status is defined as scoring between 25 and 75 on the Family Stress Checklist (FSC), a standardized instrument designed to quantify the risk of child abuse/neglect. PBH Healthy Families provides services in English and Spanish, with about two thirds of the families being English speaking.

When families enter the Healthy Families Program, they meet with a family assessment worker, who conducts an intake interview and administers the FSC. PBH's Healthy Families home visiting services differ from those typical of Healthy Families America programs in three ways:

1) the FSC documentation and scores are openly shared with the families;
2) the families' individual risk factors are identified with the family and addressed in home visiting goals and activities, and
3) all other documentation, including parent/ child observations, is shared with the families.

For those families deemed at-risk, services are delivered by family support workers (FSWs) who meet with families on a regular, usually weekly, basis in the home. FSWs, who are bachelor's and master's level prepared, use a variety of approaches such as providing information, support, modeling, developmental assessments, and skill building. A major focus is the development and enhancement of the infant/parent relationship. Services are tailored to each family's needs. An initial strength-based, comprehensive psychosocial assessment forms the basis for the first service plan. The plan's goals are developed by the FSW in partnership with the family. New goals are developed at least every 2 months as families complete old goals and situations change.

These approaches are all reflective of a philosophy of open communication and collaboration with the families. We complete informed-consent paperwork before conducting the FSC. We share all risk factors and scores with the families. Once services are begun, we regularly check back on the status of changeable, as opposed to historical, risk factors and incorporate ways of overcoming them in the support plans. All other documentation — be it our initial strength-based, comprehensive psychosocial assessment or an observation of parent/child interaction — is shared with the parent. For example, we teach our parent/child observation system to parents so that they can partner with us in enriching and enhancing their interac-

The authors wish to acknowledge the Healthy Families team — Kimberly Harden, Andrea Herzog, Amy Marsili, and Deanna Williams — for the work they do everyday to promote an infant mental health perspective with their Healthy Families clients. We would also like to thank the PBH Executive Management Team, particularly CEO Alexandria Lewis, for its support.

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tions with their child. Each of these practices is important in maintaining a home visiting relationship based on honesty and mutual respect.

Infant Mental Health Component

The Infant Mental Health Component was added to Healthy Families in early 2001. This component is staffed by our infant mental health specialist (IMHS), Carol Baxter. She is a master's prepared (advanced practice) psychiatric nurse with pediatric and obstetrical nursing experience in addition to specialized training and experience in infant mental health. She is licensed to prescribe and monitor medication. For the last 4 years, she has been employed by PBH to provide psychotherapy and medication monitoring to the clinic population. In early 2001, a portion of her time was dedicated to the Healthy Families program.

"We teach our parent/child observation system to parents so that they can partner with us in enriching and enhancing their interactions with their child."

In her role with the Healthy Families program, she provides four types of services:

1. **Direct Service to Clients:** Mental health assessment and treatment including psychotherapy and medication monitoring for interested clients with identified needs. These services employ infant mental health principles and are provided either in the home or the IMHS's clinic-based office, as the participant desires. Currently, these services are provided only in English.
2. **Training for Home Visiting Staff:** The IMHS provides training on a variety of topics relevant to the population served including topics such as attachment, depression, and relationship disturbances.
3. **Interdisciplinary Consultation:** The IMHS serves as a resource person on infant mental health issues. She consults on specific cases, such as one in which an FSW was seeking tools to facilitate connecting a participant with her very ill newborn in the ICU. Once a month, she participates in interdisciplinary staffings to offer her perspective to discussions of video observations.
4. **Training/Consultation on Pediatric and Perinatal Physical Health:** The IMHS has been able to increase home visiting staff's understanding of the physical issues surrounding pregnancy and childbearing through both formal training and case-specific consultation.

Direct Service Referrals and Case Coordination Process

FSWs give a flier describing our Infant Mental Health Component (IMHC) to all Healthy Families participants and explain that how the IMHC differs from home visiting. The FSW or the Healthy Families Coordinator will initiate a referral to the IMHS when the parent seems to have needs outside the ability and training of the FSW. Referrals are sparked by a variety of signs of emotional distress: unexplainable sad or angry feelings, unusually strong feelings of being overwhelmed or tired, difficulties in understanding links between feelings and behavior, a parent's unresolved issues from childhood, and attachment concerns. Most requests for IMHS involvement are related to separation/loss issues, abuse, and/or depression.

The FSW serves as the referral conduit for troubled or depressed participants, helping to set up the initial appointment, encouraging participation, being present if needed, and participating in case coordination. Both Healthy Families staff and the IMHS work hard at ensuring that care is coordinated. The Healthy Families Coordinator, the FSW, and the IMHS meet as needed to update each other. Meetings may be formally scheduled or on an as-needed basis, as a glance down the hall sometimes is sufficient to tell if the IMHS is available.

While about 15% of English-speaking Healthy Families participants have received direct services in the IMHC since its inception, we see the infant-parent focused services provided by the FSWs as another vital component of our infant mental health services. Their content and delivery are guided by infant mental health principals and influenced by the ongoing discussions and trainings that involve Healthy Families staff, management, and the IMHS.

Evaluation and Future Directions

IMHC has been an invaluable enhancement to the Healthy Families Program. Its addition has enabled families to receive needed care and has enhanced the quality of service provided by the home visitors. In its current pilot form, it is supported by our local Mental Health Board and by Medicaid billing for eligible clients. As with most new initiatives, its future depends on funding continuation.

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Perinatal Mental Health in Shasta County, California

Susan Howland Thompson
Infant Mental Health Specialist
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"I know my baby doesn't like me because he kicks me all the time," says a young, pregnant woman about her unborn child. "Sometimes I wish I could cut him out and spank him for kicking me," she adds. When this young woman was pregnant several years ago, she and others like her had limited opportunities for mental health treatment in Shasta County. Now, a multidisciplinary, multi-agency group of professionals is working together to strengthen mental health in the pregnant and postpartum family.

In Shasta County, a rural community 150 miles north of Sacramento, comprehensive services now are available to help expectant and new families cope with the changes brought by a new baby. Pregnant women, like the young woman quoted above, can receive quality prenatal care at Mercy Maternity Clinic or Shasta Community Health Care; nutritional counseling and food vouchers from the Women, Infants, and Children (WIC) program; in-home visits from a public health nurse; education and social services from Early Head Start; and substance abuse treatment from the Perinatal Alcohol and Drug program. Pregnant and parenting adolescents can receive specialized services with Northern Valley Catholic Social Service. Medi-Cal and Cal-Works provide medical and financial aid to families with low incomes. After the baby is born, eligible families can receive special education services and respite child care from the Shasta County Office of Education, Far Northern Regional Center, and Parent Infant Program. Child Protective Services offers a voluntary program to prevent abuse in children under the age of 5. Shasta Community Mental Health provides mental health services to families.

We are fortunate to have dedicated professionals in Shasta County who respect the work of other agencies helping young families. These professional colleagues began meeting together informally as the Infant Mental Health Task Force of Northern California, sharing a profound devotion to the emotional well-being of infants, toddlers, and families. The monthly meetings are an important networking opportunity to remain informed about perinatal services in our community.

The Healthy Pathways for Infants Program

This year, Shasta County has expanded perinatal mental health services. With grants from the Shasta Children and Families First Commission and the

The author gratefully acknowledge the support and assistance of Jan Maurer Watkins, Carla Alexander, Carol Kramer, Kelly Carter, Melissa McClure, and Eveann McGill, all of Northern Valley Catholic Social Service. Healthy Pathways for Infants would not exist without these talented women.

California Endowment, Northern Valley Catholic Social Service began Healthy Pathways for Infants, a clinical perinatal and infant mental health service. Working closely with other programs serving young families, we meet with pregnant women and parents with very young children who request mental health treatment. We serve many mental health needs, but most of our clients are women with depression or anxiety.

"We serve many mental health needs, but most of our clients are women with depression or anxiety."

Our staff of three therapists and one infant specialist is guided by the wealth of available infant mental health literature (such as the *Zero to Three* journal and the *Infant Mental Health Journal*; see also Pawl, & Dombro, 2001; Shonkoff & Phillips, 2000; Stinson, Tableman, & Weatherston, 2000). We have adopted these recognized practice standards for our clinical (psychotherapeutic) and nonclinical interventions. In our program, the therapist first completes a clinical assessment, and then chooses treatment interventions most appropriate for the family. Interventions may include infant/parent psychotherapy (Fraiberg, 1980; Lieberman, Silverman, & Pawl, 2000); interaction guidance (McDonough, 2000); cognitive-behavioral intervention (Cunningham & Zayas, 2002); and watch, wait, and wonder (Muir, Lojkasek, & Cohen, 1999), among others. Treatment is currently with individual families, but we plan to establish therapy groups soon.

The therapists and the infant specialist also offer nonclinical interventions such as Partners in Parenting Education (PIPE) (Butterfield, 1996), floor time (included in the PIPE curriculum), infant massage, developmental guidance, support and advocacy, and case management. We also have an infant/parent playgroup for social support and just plain fun. Because the basis for all of our work is the relationship between the therapist or infant specialist and the family, our most important intervention is *listening*.

Healthy Pathways for Infants provides services in the child's natural environment, usually in the home. Pregnant and postpartum women with depression often have limited mobility. Women with depression can have difficulty getting out of their homes or even their beds, especially when they are sleep deprived from their newborn's nighttime awakenings. In-home therapy is an important component of our program. Women with prenatal or postpartum depression also need a social support system, so with respect and care, we encourage participation in community activities for new parents.

A community-wide approach for physical and mental health is especially relevant for perinatal services. For example, the young woman quoted at the beginning of this paper needs assistance and support from many disciplines. Healthy Pathways for Infants (under the direction of Northern Valley Catholic Social Service) provides psychotherapeutic interventions, but these would be incomplete without other services in the community. Perinatal mental health services in Shasta County are successful because parents, professionals, and agencies work together for the community's children.

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In Memoriam

Albert J. Solnit

Founding member and life member of ZERO TO THREE, Al Solnit died in an automobile accident on June 21, 2002, at age 82. A world-renowned pioneer in child psychiatry, Solnit spent 54 years at Yale University School of Medicine and served as director of its Child Study Center from 1966 to 1983.

His career-long contributions to the infant/family field include the application of psychodynamic theory to a wide range of service settings and policy arenas in the United States and abroad. Among his published works are *Psychoanalytic Study of the Child*, an annual volume from Yale University Press of which he was managing editor for 20 years; the trilogy on family law, *Beyond the Best Interests of the Child* (1973), *Before the Best Interests of the Child* (1979), and *In the Best Interests of the Child* (1986), which he coauthored with Anna Freud, and Joseph and Sonja Goldstein; *The Many Meanings of Play*; *When Home is No Haven*; and *Divorce and Your Child* (1984). which he was revising before he died.

ZERO TO THREE Board President Sam Meisels remembers Solnit as "an indefatigable defender of the rights of children. And he was a wonderful guy to argue with about public policy, research on infant mental health, or most any other topic that he was passionate about. His legacy for us at ZERO TO THREE and for children's mental health will live on." Solnit was an early advocate for the fellowship program at ZERO TO THREE that identifies and supports future leaders in the infant/family field and which today carries his name. He also was the 1998 recipient of the ZERO TO THREE Dolley Madison Award in recognition of his lifelong achievements in leadership on behalf of children and families.

PHOTO: YALE UNIVERSITY

Among the many positions Dr. Solnit held during his distinguished career were Commissioner of the Department of Mental Health and Addiction Services for the State of Connecticut (1991 through 2000), and the presidencies of the American Psychoanalytic Association, Association for Child Psychoanalysis, American Academy of Child Psychiatry, and the International Association for Child and Adolescent Psychiatry and Allied Professions.

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National Evaluation of Early Head Start

A 7-year national evaluation of Early Head Start shows that EHS promotes children's learning and the parenting that supports it. The study found the following:

- Important gains were made in the areas of cognitive and language development, less need for special learning interventions, and improved social and emotional skills such as relating well to parents, paying attention, and behaving appropriately.
- The impacts on parenting are critical; parents in EHS read more to their children, are more emotionally supportive, and provide homes that support learning and literacy.
- Parents make greater strides toward economic self-sufficiency through EHS, that is, greater gains in education, training, and employment.
- EHS is able to have positive impacts on groups that other programs have found challenging, specifically teen parents and parents who were depressed when they began the program.

The report, *Making a Difference in the Lives of Infants, Toddlers, and Families: The Impact of Early Head Start*, is available on the Web site of the Administration for Children and Families, Child Outcomes Research and Evaluation office, http://www.acf.dhhs.gov/programs/core/ongoing_research/ehs/ehs_reports.html.

In recognition of her outstanding leadership, scholarship and passion for the well-being of infants and young children, **Kathryn Barnard** has been named the Spence Professor in Nursing at the University of Washington. As Spence Professor, Kathryn will continue to advance knowledge about infant mental health and improve support systems for families with newborns and young children. The Charles and Gerda Spence Endowed Professorship in Nursing was established in 1995 to enhance the University's ability to attract and retain distinguished faculty within nursing. Dr. Barnard is the second Spence Professor.

Sheila Kamerman has been appointed Interim Dean of Columbia University School of Social Work and also recently received a Lifetime Achievement in Social Policy award by the Council on Social Work Education.

The Colorado Associate for Infant Mental Health (CAIMH) was established in July 2001 and was confirmed as an affiliate of the World Assocation for Infant Menatl Health (WAIMH) by the WAIMH Board last fall. Officers include Joy Browne, President; Lorraine F. Kubicek, President-Elect; and Christina Little, Secretary/Treasurer. Robert N. Emde serves as special advisor to the group.

Postpartum Depression and Child Development

(1997) Lynne Murray and Peter J. Cooper, Eds. (The Guilford Press, 72 Spring Street, New York, NY 10012, www.guilford.com) $40.00

Written for professionals in the field of psychiatry, developmental and clinical psychology, pediatrics, and social work, this publication focuses on the implications of postpartum depression on child developmental progress. The featured papers expand the reader's understanding of the impact of this maternal mood disorder on the child, examine the architecture of mother-infant interactions and implications for postpartum depression, and explore treatment options.

The introductory chapter provides a comprehensive review of research on the epidemiology of postpartum depression, its etiology, and its course. With this foundation, the next section (3 chapters) examines the intellectual and empirical background for thinking about the influence of maternal depression on the mother-infant dyad and potential consequences for the infant. The bulk of the book (4 chapters) presents the latest research on the development of children whose mothers have experienced postpartum depression. Editors Lynne Murray and Peter J. Cooper contribute findings from prospective longitudinal studies that track the development of a sample of such children from birth to 5 years of age. Treatment of postpartum depression is discussed in the final 3 chapters, including a chapter by Tiffany Field that presents a sampling of both brief and intensive interventions. The final chapter, by Alison E. Hipwell and R. Channi Kumar, provides a review of the available research on the impact of postpartum affective psychosis on parenting and child development.

The Motherhood Constellation: A Unified View of Parent-Infant Psychotherapy

(1995) Daniel N. Stern (BasicBooks, 387 Park Avenue South, New York, NY 10016, www.basicbooks.com) $48.00

The goal of this book, written for professionals in the fields of human development, psychopathology and therapy, is to identify the features of a new form of parent-infant psychotherapy. Stern observes that the parent-infant relationship has several unique

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qualities, including the fact that the "patient" is not a person, but a relationship between a parent and an infant. This relationship, conducted nonverbally and presymbolically, is influenced by the past history of the parent and the developing history on the part of the infant.

Though in the vast majority of cases parents are psychologically "normal," Stern believes that they do have a special psychological condition he refers to as the motherhood constellation. This describes a new organization of mental life on the part of the parent (usually the mother), one that is appropriate for and adapted to having an infant to care for. Thus, any treatment of parent-infant relationship disturbances must take into account most mothers' predisposition to think, act, and feel certain ways.

Part I of the book describes the nature of the parent-infant clinical situation including the elements that comprise it. Part II features various parent-infant therapeutic approaches, and synopsizes the commonalities among these approaches. Part III discusses the motherhood constellation and its implications for the therapeutic alliance. The book concludes with a discussion of the most effective elements in parent-infant therapy, and the presents a general new form of therapy for addressing relationship disturbances within parent-infant dyads.

A Good Start in Life: Understanding Your Child's Brain and Behavior

(2002) Norbert Herschkowitz and Elinore Chapman Herschkowitz (Joseph Henry Press, 2101 Constitution Avenue, N.W., Washington, DC 20418, www.nap.edu) $22.95

Although ostensibly written for parents, this book integrates the biology and psychology of early child development in a manner useful for parent educators, teachers and caregivers, and others working directly with families. Each chapter addresses a different phase of children's personal and social development, beginning with the prenatal period. At the end of each chapter, a section titled "To Think About" addresses questions common to the developmental stage covered in the preceding pages. The authors combine vignettes and examples, personal experience, and scientific research throughout the publication which covers children's development from birth to age 6.

The book focuses on brain development, providing clear explanations of various neuroanatomical processes such as the development of the nervous system, spoken and written language ability, memory, and learning. The authors use the science of the developing brain as a foundation from which to cite relevant research and provide parenting recommendations. For example, a section on temperament features several vignettes, a discussion of research from the fields of both human development and neuroanatomy, and an explanation how neurotransmitters and the frontal cortex affect temperament. The book concludes with ten guideposts for families which highlight the most important behaviors for a 5- to 6-year old to display. The authors also include a glossary of terms related to brain development.

Promoting Maternal Mental Health During Pregnancy: Theory Practice, and Intervention

(2001) JoAnne Solchany (Nursing Child Assessment Satellite Training, University of Washington, Box 357920, Seattle, WA 98195-7920, www.ncast.org/p-pregnancy.asp) $69.95

A ZERO TO THREE Solnit Fellow and principal research scientist at NCAST School of Nursing at the University of Washington, JoAnne Solchany has written a book exploring women's emotional and psychological health during pregnancy. It

Call for Papers on Caregiver Goals and Social Expections

Cultural models of child rearing and parenting contribute to the ways that families interact with their children and, often, to the ways that families use early care, education, and intervention programs. Recent studies have begun to detail how different families and caregivers negotiate among competing cultural models that often co-exist in communities. The April/May 2003 issue of Zero to Three will examine how social class and poverty-related stress influence familial goals in ways that often do not match a program's or mainstream society's expectations. There are, for example, increasing expectations from educational systems, including Head Start, for parents to provide educational experiences and support to help their children become ready for school. How are the child-rearing patterns of parents who are not highly educated or fully literate in any language going to meet these expectations and their children's needs?

This issue will explore the dynamic tensions between family and program practices, whatever their origins. Articles are sought that will provide a window into ways that families and program staff influence each other's caregiving goals and practices to create a more meaningful fit.

Guest editors for this issue are representatives of the infancy programs housed in each of the Four-College Early Childhood Consortium: Virginia Casper, Bank Street College of Education; Fran Stott, Erikson Institute; Renatta Cooper, Pacific Oaks; and Cathy Finn, Wheelock College. The Editors invite all interested readers to submit a 200-300 word abstract outlining a proposed article describing work in the areas described above.

Please send abstracts, electronically — no later than October 10, 2002 — to either Fran Stott at fstott@erikson.edu, or to Virginia Casper at vcasper@bnkst.edu.

was developed for use by individuals with health training and experience in the basic management of pregnancy, or by non-health trained professionals who are supervised by health care providers. The book is designed to help practitioners move beyond the physical symptoms of pregnancy and explore the emotional and psychological challenges faced by new and expectant parents.

These materials encompass both the normal, typical course of pregnancy as well as high-risk pregnancies, domestic violence, pregnant women with unresolved grief or loss, and those women experiencing depression or other mental health disruptions. Solchany addresses issues including parent-child bonding, attachment of the child to the parent, early brain development, and the important role that emotionally attentive and responsive caregiving play in the child's emotional and cognitive development.

The book is divided into three sections. The first, Theory, explains the theory and background of the psychological and emotional work of pregnancy. The Practice section addresses mental health assessment during pregnancy, practice parameters, and also provides suggestions for how providers can intervene. The final section, Interventions, includes 56 activities and handouts that can be used with pregnant women in either clinical settings or home-visiting programs. In addition to the book, this resource set includes an assessment card and assessment form, a tracking form, and a vinyl carrying case.

Bright Futures in Practice: Mental Health

(2002). Micheal Jellinek, Bina Patel, and Mary Froehle (Eds.). (National Center for Education in Maternal and Child Health. Available on the internet at http://brightyfutures.org/mentalhealth.)

The Bright Futures in Practice series is a national initiative to promote and improve the health and well-being of children, from birth through adolescence. The latest volume in this series presents a set of guidelines for mental health promotion for infants, children, and adolescents. The guidelines use a developmental context to present information on the early identification and treatment of specific mental health problems. The publication includes a mental health tool kit for professionals and families to use for screening, follow-up care, and education. The guidelines were developed by an interdisciplinary panel of expert contributors.

Videotapes

Diapers and Delirium: Care & Comfort for Parents of Newborns

Produced by Lifestyle Productions, Inc. Available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 27 min. Available in English and Spanish. Purchase $24.95 plus shipping and handling.

Welcome to the intense, challenging, and sometimes hilarious weeks at home following a birth. *In Diapers and Delirium*, new moms and dads will learn how to handle situations involving a newborn. Some topics addressed are how to handle visitors who drop by at the worst possible moment, what to really expect during the first few days at home, and why friendships can change profoundly after a birth.

Fragile Beginnings: Postpartum Mood and Anxiety Disorders

Produced by Lifestyle Productions, Inc. Available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 25 min. Purchase $75 plus shipping and handling.

Thousands of women each year suffer from postpartum mood and anxiety disorders. This video presents women who have lived through this experience. In a group discussion they recount their stories from the onset of illness through the search for the correct diagnosis, treatment, and eventual recovery. The topics explored include: postpartum depression, postpartum panic disorder, postpartum obsessive-compulsive disorder, postpartum psychosis, breastfeeding, and family support. This program will help both professionals and families recognize the symptoms of a postpartum mood disorder.

The Gift of Baby Massage

Available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304.; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 35 min. Purchase $29.95 plus shipping and handling.

Rebecca Klinger, a licensed massage therapist certified in infant massage, teaches the simple, safe, and effective methods of baby massage. Techniques included derive from Swedish, Indian, and Asian infant massage. Max A. Kahn, a pediatrician, joins Rebecca to answer common questions about baby massage. This program is conveniently divided into six chapters for easy and flexible use. Chapters address massaging legs and feet, abdomen and chest, arms and hands, head and face, and back.

Happy Healthy Babies and Moms: The First 90 Days

Produced by Family Experiences Productions. Available from Child Development Media, Inc., 5632 Van Nuys Blvd, Suite 286. Van Nuys, CA 91401; 800-405-8942, fax: 818-994-0153, www.ChildDevelopmentMedia.com. 60 min. Purchase $60 plus shipping and handling.

Parents of newborns are often overwhelmed when they find they suddenly need to take care of these infants. A thousand questions come to mind on the most basic topics such as diapering, holding, feeding, sleeping, bathing, etc. Covering more than 49 topics, this video

shows mothers how to take care of their newborns—and themselves—during their child's first 3 months, and answers their most common questions. The video is divided into three sections: The First Few Days at Home, Care of the New Mother, and Care of the Newborn. Each section contains scenes relating to basic topics of interest to all new and "repeat" parents. A printed index outlines these topics and serves as a reference.

Heartache and Hope: Living Through Postpartum Depression

Produced by and available from White Iron Productions, P.O. Box 35102, 4604-37th St. S.W., Calgary, Alberta, Canada, T3E 7C7. E-mail: admin-pdc@shaw.com. 27 min. Purchase $39.95 plus shipping and handling.

Developed for both families and health care professionals, this video tells the compelling stories of four couples who celebrate the positive outcomes of their postpartum experience. Traumatized by non-stop tears, low self-esteem, and the inability to celebrate the birth of their children, these parents faced postpartum depression (PPD) head on. These couples discovered that their unexpected struggles ultimately led to unanticipated joy and the knowledge that PPD does subside. Topics include signs and symptoms of PPD, everyday coping skills, breastfeeding while on medication, and the importance of support for mothers.

Healthy Steps for Teen Parents: Volume 3, Postpartum

Produced by and available from Injoy Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. (set also Volume 1, Prenatal Care, and Volume 2, Labor and Delivery) Purchase $199.99 each program, $450 for the set plus shipping and handling.

In this video, teen moms and dads share personal insight about how they navigated life as new parents. Various issues addressed are healing physically after birth, bonding and caring for a new baby, child-care options, and new parent concerns. Teen moms discover that anxiety and mood swings are natural occurrences, and that as their bodies return to normal so will their emotions. New parents learn about feeding, when to call a pediatrician, how to interact with their baby, and much more. The video explores the unique challenges teen parents face, including relationship and lifestyle changes, the importance of staying in school, and other strategies that help them lead successful lives.

Healthy Touch: Infant Massage for Teenage Parents

Produced by and available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. Purchase $79.95 plus shipping and handling.

Infant massage is an important addition to any program serving teen parents. *Healthy Touch* teaches skills that will deepen teens' relationships with their babies. Infant massage helps parents communicate love, respect, safety and acceptance. The simple massage strokes are easy for teens to learn and incorporate into their daily contact with their babies. This interactive video is an effective way to bring infant massage into any teen parent program.

Hospital to Home

Produced by and available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 31 min. Available in English and Spanish Purchase $250 plus shipping and handling.

This video guides parents through all facets of newborn care including the steps of recovery and emotional and physical wellness. Easy-to-understand explanations help parents meet the demands of caring for themselves as well as their newborns. Visual summaries of key concepts enhance retention. Narrated by an experienced mother with a newborn of her own, each segment imparts practical advice accompanied by footage of diverse families using the techniques in real-life situations. The topics include mother care for optimum recovery, importance of getting support, facts about lochia, pain management for afterpains, simple ways to reduce the risk of infection, techniques for perineum and hemorrhoid healing, how to combat the baby blues, and cope with postpartum depression. The video also includes baby-care issues such as umbilical cord and circumcision care, breast and bottle feeding, crying, diaper changing, bathing, taking temperatures, SIDS, and tips for using car seats.

Knowing the Unborn

Produced by and available from Injoy Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082; fax: 303-449-8788, www.injoyvideos.com. 29 min. Purchase $39.95 plus shipping and handling.

The premise of this video is that a child's emotional and intellectual life starts soon after conception. *Knowing the Unborn* explores the newly emerging and truly important concept of pre-birth parenting. We observe parents interact and bond with their babies in utero. Fetal motion pictures encourage us to think of babies as aware, interactive beings.

Postpartum Emotions: The Blues & Beyond

Produced by and available from Family Experiences Productions, Inc. P.O. Box 5879, Austin, TX 78763-5879; 512-494-0338, fax: 512-494-0304, www.fepi.com. 17 min. Available in English and Spanish. Purchase $49.95 plus shipping and handling.

This video provides an overview of postpartum emotions and explains

the differences between "baby blues", postpartum anxiety, and postpartum depression (PPD). Problematic symptoms are identified and effective intervention options are suggested. Ann Dunnewold, a specialist in women's health psychology and PPD talks with mothers who have recently and effectively dealt with PPD. A printed index outlines the topics and offers additional resources and references.

Postpartum: Bittersweet Experience

Produced by Lifestyle Productions, Inc. Available from INJOY Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 30 min. Available in English and Spanish. Purchase $39.95 plus shipping and handling.

This program on postpartum adjustment has become a classic. It combines Jeanne Driscoll's parenting class with new parents' candid discussions about surviving those difficult weeks following the birth of a baby. New parents will learn about mother's postpartum sadness, new parent survival techniques, father's "baby blues," dealing with parenting "shoulds and shouldn't" of others, adjusting to chaotic lives, and mother's return to work

Postpartum Depression: Hope and Healing

Produced by and available from St. Joseph's Women's Health Centre, 30 The Queensway, Toronto, ON, Canada M6R 1B5; 416-530-6850. 28 min.

This video reviews the scope of postnatal adjustments and focuses on postpartum depression (PPD) which effects 10% to 20% of new mothers. PPD effects women of all classes and cultures and can effect their entire families. Symptoms vary greatly and each woman experiences PPD differently. This video dispels the myth of motherhood and the image of the ideal new mother. While women are often prepared for pre and postnatal physical changes, rarely are the psychological and social changes discussed. Women and their partners share their experiences of PPD including symptoms, resources, and recovery.

Staying Sane: Timesaving Tips for New Parents

Produced by Lifestyle Productions, Inc. Available from Injoy Videos, 3970 Broadway, Suite B4, Boulder, CO 80304; 800-326-2082, fax: 303-449-8788, www.injoyvideos.com. 22 min. Purchase $129 plus shipping and handling.

While there are dozens of videos on newborn care, there are few that teach about day-to-day life after baby arrives. Parents need to eat, do laundry, shop, and spend quality time together, but no one tells them how to accomplish these tasks with a new baby in the house. Parenting expert, Jeanne Driscoll, shares over thirty practical tips to help parents. In this video new parents will learn about simplifying daily chores, efficient grocery shopping, establishing a cooking calendar, creating diaper and mom stations, organizing a baby-friendly kitchen, dealing with visitors and phone calls and how to ask friends for help. After implementing these suggestions parents will find that their lives run more smoothly and that they have extra time for each other and their baby.

On-Line Resources

Brain Wonders

http://www.zerotothree.org/brainwonders

ZERO TO THREE has recently expanded it's BrainWonders Web site. BrainWonders, developed in collaboration with the Erikson Institute and the Boston University School of Medicine, provides comprehensive information on how the brain develops within the context of relationships from conception through age three. The Web site provides guidelines and practical information for parents, child care providers, and pediatricians. Most recently, the site added new content on early literacy. BrainWonders offers tips on fostering early literacy through activities such as book handling, looking and recognizing, picture and story comprehension, and storyreading.

The Center on the Social and Emotional Foundations for Early Learning

http://csefel.uiuc.edu

The Center is a new initiative funded by the Child Care and Head Start Bureaus. Located at the University of Illinois at Urbana-Champaign, it was created to help child care and Head Start programs develop practices to improve the social and emotional outcomes of young children. The Center will develop training and technical assistance materials for the early childhood community.

Knowledge Exchange Network

http://www.mentalhealth.org

The Center for Mental Health Services (CMHS) developed the Knowledge Exchange Network (KEN) for users of mental health services and their families, the general public, policy makers, providers, and the media. The Web site provides free information about mental health, including publications, references, and referrals to local and national resources and organizations. The site includes a newsroom of the latest mental health articles updated each business day, a kids' area, a section featuring Spanish-language publications and links, and searchable databases.

NEW FROM ZERO TO THREE

Case Studies in Infant Mental Health:

Risk, Resiliency, and Relationships

Edited by Joan J. Shirilla and Deborah J. Weatherston

Since 1977, ZERO TO THREE has championed the sharing of detailed case studies as a way to learn and improve practice, believing that

We learn most from those we serve and from others who share that experience with us.

We are pleased to continue that rich tradition by publishing this exemplary volume of detailed and diverse case studies. After briefly documenting the history of infant mental health as originally conceived by Selma Fraiberg, *Case Studies in Infant Mental Health* offers 12 real-life stories written by infant mental health specialists about their work with a young child and family. Discussion questions at the end of each case study are designed to guide self-reflection or group study.

An excellent resource for trainers, educators, practitioners, and students.

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203 pages
Publication number: 266-1CF

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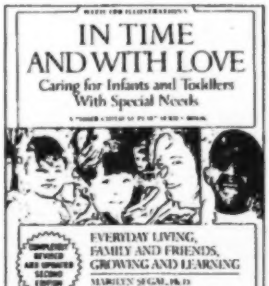
Newly revised

In Time and With Love:

Caring for Infants and Toddlers with Special Needs – Second Edition

By Marilyn Segal, Wendy Masi, and Roni Leiderman



Nurturing the Development of Young Children with Disabilities

In the newly revised and updated edition of *In Time and With Love: Caring for Infants and Toddlers with Special Needs – Second Edition*, the authors offer practical advise, based on the latest research, to enhance the development of very young children with special needs.

This edition is complete with new sections on games and activities to promote development and learning. It also explores the ups and downs of families' experiences with a child with special needs, offers ways in which parents can stimulate growth, and shares advise on how to face tough decisions and cope with illness and hospitalization.

A great resource for providing quality services to infants and toddlers with special needs...
To order, please call 1-800-899-4301 or visit www.zerotothree.org "bookstore."

Publication # R127-JRN, 256 pages + 100 photographs, (2002), ISBN#1-55704-445-7, $18.95

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The Sally Provence Award for Excellence

* Recognizes, in alternate years, individuals and service programs whose work with infants, toddlers, families, and communities demonstrates the qualities that Dr. Provence considered essential to effective practice.
* Honors Sally Provence, M.D., a pioneer in the infant/family field and a founding member and president of ZERO TO THREE. As a pediatrician and mental health clinician at the Yale Child Study Center, she called attention to qualities in both individuals and programs that are likely to lead to success in supporting the development of very young children:

- an abiding curiosity about the meaning of behavior in very young children and their families;
- a sturdy conceptual framework for understanding developmental issues and problems in children and parents that also serves as the foundation for services;
- continuity and individualization of respectful, trustworthy care; and
- training and ongoing support for all professionals who touch the lives of babies, toddlers, and families.

Eligibility

The 2002 award will be made to a program.

Nomination process

Programs can nominate themselves or be nominated by others. In the latter case, the nominator will determine the program's willingness to be considered, provide contact information, and request that ZERO TO THREE send the program an application.

Selection process

Programs wishing to be considered for the award will complete an application that focuses on the way in which the four program characteristics, listed above, are brought to bear on services to a particular child and parent/family. The application, due September 15, 2002, includes questions for both program staff and parent/family members to answer.

Recognition

The award will be presented at the December 7, 2002, awards luncheon at ZERO TO THREE's National Training Institute in Washington, D.C. Travel, hotel, and registration costs for a representative of the recognized program will be complimentary. The Zero to Three journal and the organization's Web site will also feature the program.

For more information

For an application, please e-mail Bill McCall, Program Associate, at b.mccall@zerotothree.org, or call him at (202) 638-1144, ext. 665.

The Editorial Mission of the *Zero to Three* Bulletin

To provide a forum for thoughtful discussion of important research, practice, professional development, and policy issues in the multidisciplinary infant, toddler and family field.

The Mission of ZERO TO THREE: National Center for Infants, Toddlers and Families

ZERO TO THREE is a national nonprofit whose mission is to promote the healthy social, emotional and intellectual development of our nation's infants and toddlers by supporting and strengthening families, communities, and those who work on their behalf.

www.zerotothree.org

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